

# COSUMNES BRIDGE REPLACEMENT

CM/GC PROPOSAL FOR DESIGN AND CONSTRUCTION  
ON STATE HIGHWAY IN CITY OF ELK GROVE  
IN SACRAMENTO COUNTY

**DUE DATE & TIME:** Tuesday, 6/12/2018, 3PM Local Time  
**CONTRACT NO.** 030F28CM



**Caltrans**®



**GRANITE**®

**Your goals. Our mission.**

**Granite Construction**

Mike Tatusko, Project Principal &  
Vice President of Regional Operations  
4001 Bradshaw Road, Sacramento, CA 95827  
Office: (916) 855-4402 Cell: (916) 817-0064



Doug Lange, Project Manager  
State of California Department of Transportation  
District 3 Office  
Division of Project/Program Management  
703 B Street  
Marysville, CA 95901

Re: Cosumnes Bridge Replacement – CM/GC Services Request for Qualifications (Contract No. 030F28CM)

Mr. Lange,

Granite Construction Company (Granite) respectfully submits the following qualification the for the above referenced project. We are well-positioned to provide CM/GC services and perform all required work for the Cosumnes Bridge Replacement project. Timing is everything and this project fits our proposed key personnel and resources perfectly. Our estimating and preconstruction services staff are available immediately.

### **About Granite**

Founded in California, Granite is one of the most well established heavy civil contractors in the U.S. As a pioneer and leader in alternate procurement delivery methods, Granite will support our Caltrans partners to realize the full benefits of the CM/GC process. Our experienced team will provide Caltrans with constructability, cost and schedule solutions, while continuing to promote a collaborative culture of trust during the preconstruction phase and throughout the life of the project. Our risk mitigation skills are based on actual experience and in-depth analysis. The Cosumnes Bridge Replacement project will benefit from Granite's proven CM/GC experience and development tools. Our area offices in Bakersfield, Fresno, Stockton, Sacramento and Oroville have significant Caltrans experience on the Hwy 99 corridor which will provide unique value to the Cosumnes Bridge Replacement project.

### **Granite's Benefits**

As a "sole proposer" we are unencumbered by J-V partners or dedicated subcontractors. We will put the project first and offer the unique benefit of continually selecting the best value subcontractors and vendors for this project by acting as your Construction Manager first and General Contractor second. Our local resources and offices mean that the project will not experience any additional costs related to relocation, per diem, subsistence, or excessive mobilization costs. This local team offers Caltrans the following specific benefits for the Cosumnes Bridge Replacement project:

- **Safety:** Our vast experience on roadway and infrastructure projects will ensure safe and productive project delivery, from preconstruction through final completion. Safety is embedded in Granite's culture and is one of our core values.
- **Mobility:** Traffic mobility and safety are primary concerns on every project. We will identify impacts and mitigate throughout the staging and MOT plans.
- **Quality:** Quality is a Granite core value and we have received numerous awards for construction quality. In addition, we maintain local technicians and an in-house materials testing laboratory, based in Sacramento, and available as necessary to assist in design efficiency.
- **Public Interaction:** As members of the community, we travel the Hwy 99 corridor daily and understand the value of Hwy 99 as a transportation route. We will effectively communicate with the traveling public, truck traffic, commuters, businesses and other stakeholders to advise of potential impacts to traffic. Our comprehensive public information system is detailed later in this proposal.



- **Environmental Compliance:** As a contractor and construction materials producer, environmental compliance is part of our daily routine and critical to the success of our business.
- **Project Delivery:** Granite's entire proposed staff and workforce is local to District 3. Granite has the in-house capability to self-perform all scope components of the Cosumnes Bridge Replacement project. 100% of Granite's CM/GC projects have successfully reached the GMP phase and were completed on-time with no claims or arbitration.
- **Innovation:** Demonstrated in detail later in this proposal, Granite's Decision Analysis and Resolution Tracking (DART) process allows us to quickly identify and evaluate potential value engineering and risk mitigation alternatives, which results in time and money savings.
- **Local Requirements:** Having been in business in Sacramento for the last 63 years, we are well versed on the local requirements that surround the Cosumnes Bridge Replacement project.
- **Railroad Requirements:** Granite has worked for Union Pacific Railroad and we have delivered numerous successful projects for them. We understand their principal goal of avoiding disruption of their operations and facilities.

Whether building transportation facilities for Caltrans or handling critical flood control measures, like our recently completed \$250M Folsom Dam Auxiliary Gate structure project, we provide our clients with a full breadth of knowledge and experience. Our staff and crews are among the best in the industry and we look forward to proving our abilities again with our longtime Caltrans partners.

We have successfully completed over \$9B in alternative procurement projects over the last decade. We have enclosed our statement of qualifications that highlight our company and local CM/GC experience and we are confident that we will fulfill Caltrans' project goals.

Please do not hesitate to contact me regarding any questions or clarification at [Michael.Tatusko@gcinc.com](mailto:Michael.Tatusko@gcinc.com) or at (916) 817-0064.

We look forward to working with you throughout the CM/GC process on this important project.

Thank you for your consideration.

Sincerely,



Michael G. Tatusko  
Vice President/Project Principal  
California Valley Region





# COSUMNES BRIDGE REPLACEMENT



## TRANSMITTAL LETTER & PROPOSER CERTIFICATION

Form A: Transmittal Letter  
Form G: Proposer SOQ Certification



# COSUMNES BRIDGE REPLACEMENT



Transmittal Letter

TRANSMITTAL LETTER



**Form A**  
**TRANSMITTAL LETTER**

SOQ Date: June 12, 2018

State of California  
Department of Transportation  
District 3 Office  
Division of Project/Program Management  
703 B Street  
Marysville, CA 95901  
Attention: Doug Lange, Project Manager Telephone: (530) 741-4465

The undersigned (Proposer) submits this proposal and Statement of Qualification submittal (this SOQ) in response to that certain Request for Qualifications dated as of February 20, 2018 (as amended, the RFQ), issued by California Department of Transportation (Department) to provide preconstruction services and construct the related facilities within 0.3 mile south of Dillard Road Overcrossing (OC) to 0.6 miles south of Grant Line Road., as described in the RFQ.

Enclosed, and by this reference incorporated herein and made a part of this SOQ, are the following:

Transmittal Letter (this Form A)  
Form G, Proposer's SOQ Certification  
Section 1: Legal Structure  
Section 2: Financial Capacity  
Section 3: Safety Program  
Section 4: Firm Experience and Past Performance  
Section 5: Proposer Key Personnel  
Section 6: Project Understanding and Approach  
Appendices A & B (Resumes and Legal Documents)

Proposer acknowledges receipt, understanding, and full consideration of all materials posted on the Cal eProcure website as set forth in Section 1.3, and the following addenda and sets of questions and answers to the RFQ:

[Proposer to list any addenda to this RFQ and sets of questions and answers by dates and numbers prior to executing Form A]

1. **Acknowledgment of Addenda: #1, May 11, 2018, June 5, 2018**
  - Questions and answers: 1-8 dated May 11, 2018
- **Modification to Appendix B & C of Form B dated June 5, 2018**
2. **Acknowledgment of Addenda: #2, May 22, 2018**
  - Questions and answers: 9

Proposer represents and warrants that it has read the RFQ and agrees to abide by the contents and terms of the RFQ and the SOQ. If the Proposer consists of more than one entity, all members of the Proposer entity agree to accept joint and several liability for performance under the Preconstruction Services Contract. Proposer understands that Department is not bound to award a Preconstruction Services Contract and may reject each SOQ Department may receive. Proposer further understands that all costs and expenses incurred by it in preparing this SOQ and participating in the Project procurement process will be borne solely by the Proposer.

Proposer agrees that Department will not be responsible for any errors, omissions, inaccuracies, or incomplete statements in this SOQ. This SOQ shall be governed by and construed in all respects according



**Form A**  
**TRANSMITTAL LETTER**

incomplete statements in this SOQ. This SOQ shall be governed by and construed in all respects according to the laws of the State of California:

Proposer's business address:

4001 Bradshaw Road

Sacramento, CA 95827

State or Country of Incorporation/Formation/Organization: California

Sample signature block for corporation or limited liability company:

*Granite Construction Company*

By: 

Print Name: Kyle T. Larkin

Title: Senior Vice President

**CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT**

State of California

See Attached California Acknowledgment

County of \_\_\_\_\_

On \_\_\_\_\_ before me, (here insert name and title of the officer), personally appeared

\_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within the instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public Signature

Notary Public Seal

ADA Notice: For individuals with sensory disabilities, this document may be available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management,



## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Diego )

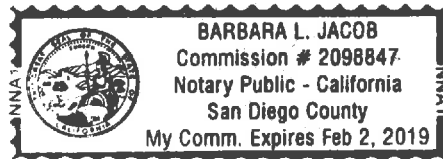
On 6/6/18 before me, Barbara Jacob  
(insert name and title of the officer)

personally appeared Kyle T. Larkin, Senior Vice President,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature  (Seal)



# COSUMNES BRIDGE REPLACEMENT



## PROPOSAL CERTIFICATION

Form G: Proposer SOQ Certification

Proposer Certification



**Form G**  
**PROPOSER SOQ CERTIFICATION**

A COPY OF THIS CERTIFICATION MUST BE COMPLETED AND SIGNED BY PROPOSER AND, IF A PROPOSER IS A PARTNERSHIP, LIMITED PARTNERSHIP, JOINT VENTURE OR OTHER ASSOCIATION, THEN A SEPARATE CERTIFICATION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF EACH MEMBER AND SUBMITTED WITH THE STATEMENT OF QUALIFICATIONS.

**DECLARATION**

STATE OF California \_\_\_\_\_ )  
 )SS:

COUNTY OF San Diego \_\_\_\_\_ )

I, (printed name) Kyle T. Larkin, being first duly sworn, state that I am the (title) Senior Vice President of the Proposer.

I certify that I have read and understood the information contained in the Request for Qualifications issued by the California Department of Transportation for the Cosumnes Bridge Replacement Project and the attached Statement of Qualifications (SOQ), and that to the best of my knowledge and belief all information contained herein and submitted concurrently or in supplemental documents with this SOQ is complete, current, and true. I further acknowledge that any false, deceptive, or fraudulent statements in the SOQ will result in denial of pre-qualification status.

\_\_\_\_\_  
(Signature)  
Kyle T. Larkin, Senior Vice President  
(Name Printed)

**ACKNOWLEDGMENT**

State of California  
County of \_\_\_\_\_

See Attached California Acknowledgment

On \_\_\_\_\_ [Insert date] before me, \_\_\_\_\_ [Insert name and title of the officer] personally appeared, \_\_\_\_\_ [Insert name of signer above], who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public Signature

Notary Public Seal

**NOTICE TO APPLICANTS:**

A material false statement, omission, or fraudulent inducement made in connection with this Statement of Qualifications is sufficient cause for denial of the application. In addition, such false submission may subject the person or entity making the false statement to criminal charges. (Title 18 USC 1001, false statements; California Penal Code section 132, offering altered or antedated or forged documents or records; and section 134, preparing false documentary evidence)

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Diego )

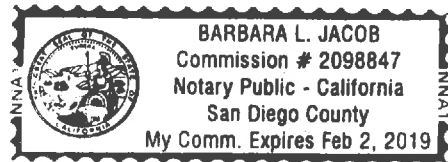
On 6/6/18 before me, Barbara Jacob  
(insert name and title of the officer)

personally appeared Kyle T. Larkin, Senior Vice President,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature  (Seal)





# COSUMNES BRIDGE REPLACEMENT



## SECTION ONE LEGAL STRUCTURE

Description of Proposed Legal Structure  
Identification of Major Participants  
Form E: Proposer's Organization  
Form F: Proposer's Disadvantaged Business Enterprise

SECTION ONE:  
LEGAL STRUCTURE



As the Sole Major Participant, Granite offers Caltrans a **local Sacramento presence**, greater **flexibility for Small Business & Subcontractor** pricing/participation, and **Granite-proven CM/GC processes**

- ▶ **Company Name/CA License #**  
Granite Construction  
Company # 89
- ▶ **Local Business Address**  
Granite Construction  
Valley Region  
4001 Bradshaw Road,  
Sacramento, CA 95827
- ▶ **Type of Ownership/Legal Entity**  
Corporation
- ▶ **Name/Address of Parent Company**  
Granite Construction  
Incorporated  
585 West Beach Street  
Watsonville, CA 95076

## A. LEGAL STRUCTURE OF PROPOSER AND ITS ORGANIZATION

Granite Construction Company was originally incorporated in 1922. In 1990, Granite Construction Incorporated was formed as the holding company for Granite Construction Company and its wholly-owned subsidiaries and was incorporated in Delaware.

## B. FORM A: TRANSMITTAL LETTER

As the sole Proposer/Major Participant, Granite Construction Company agrees to be fully liable for the performance under Preconstruction Services Contract. Form A: Transmittal Letter has been executed and is located in the previous section under Form A.

## C. IDENTIFICATION OF MAJOR PARTICIPANTS

The Proposer is a sole Major Participant, Granite was founded in California in 1922 and is one of the nation's largest, heavy civil contractors and construction materials producers with a demonstrated annual bonding capacity of \$5B.

## D. CONFLICT OF INTEREST

Granite Construction Company has submitted Appendix D: Disclosure of Potential Conflict of Interest of Certification as requested by the Agency. The information is provided under separate sealed cover as requested.

## E. FORM E: PROPOSER'S ORGANIZATION

Granite Construction Company has completed Form E: Proposer's Organization Information - and is included within this section.

## F. FORM F: PROPOSER'S DISADVANTAGED BUSINESS

**Enterprise Declaration Affidavit** - Granite Construction Company has completed Form F: Proposer's Disadvantaged Business Enterprise Affidavit - and is included within this section.



# COSUMNES BRIDGE REPLACEMENT



## SECTION ONE

Form E: Proposer's Organization Information

Form E: Proposer's  
Organization Information

**Form E**  
**PROPOSER'S ORGANIZATION INFORMATION**

Name of Proposer: Granite Construction

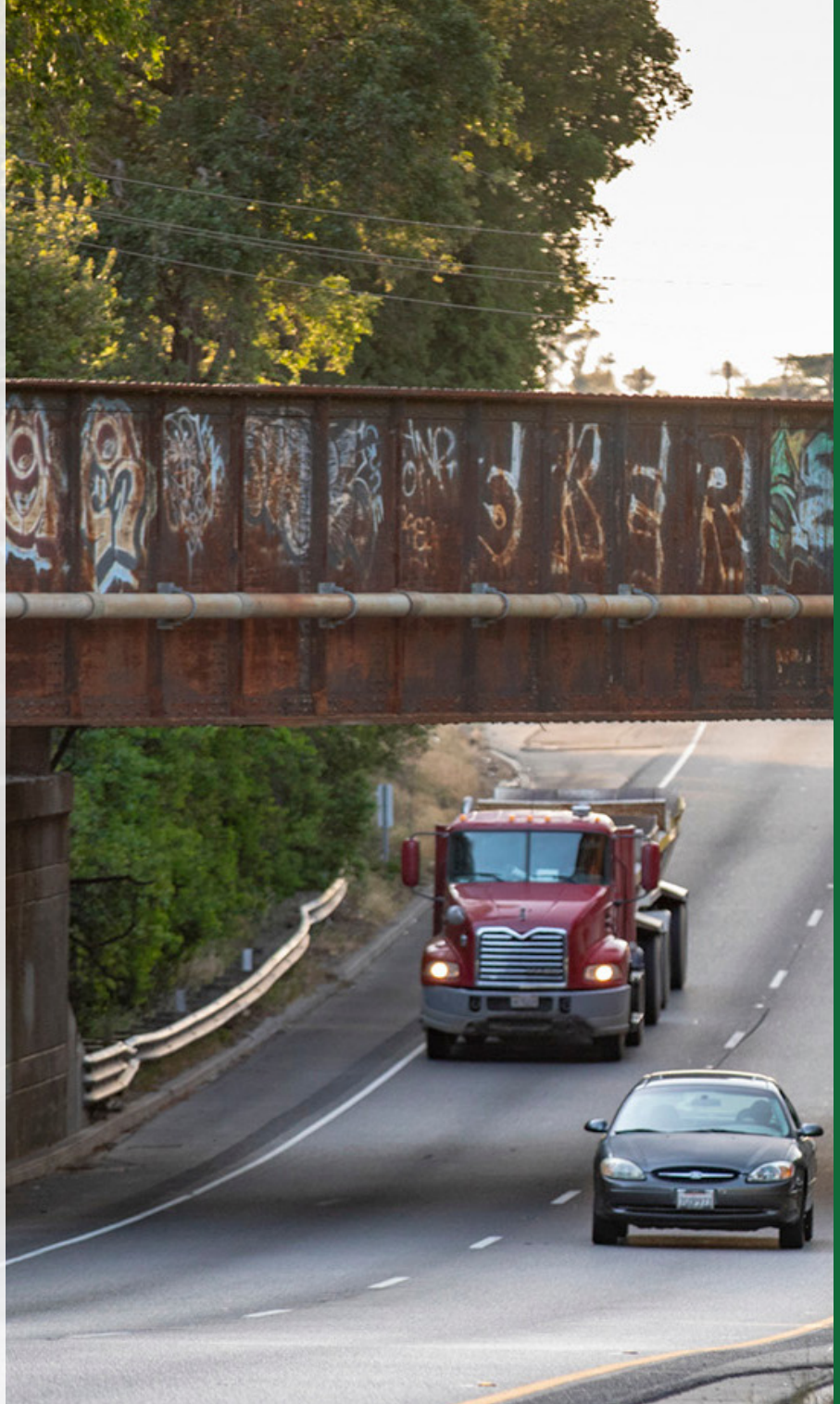
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Instructions for Form completion: Responses to each subject area shall be addressed within the table below. If additional space be needed, Proposers are advised to increase space following question as appropriate. Form E shall have no SOQ page limitation.

Proposer (Individual Firm / Joint Venture / Partnership / LLC)	
Name of Entity: <u>Granite Construction Company</u>	
Address: <u>585 West Beach Street</u>	
<u>Watsonville, CA 95076</u>	
Contact Name: <u>Richard Rantala</u>	Title: <u>Senior Vice President</u>
Telephone No.: <u>(831) 768-4195</u> Fax No.: _____	E-mail: <a href="mailto:Richard.Rantala@gcinc.com">Richard.Rantala@gcinc.com</a>
Local / Regional Contact	
Name: <u>Mike Tatusko, Project Principal, V.P.</u>	
Address: <u>4001 Bradshaw Road</u>	
<u>Sacramento, CA 95827</u>	
Telephone No.: <u>(916) 817-0064</u> Fax No.: _____	E-mail: <a href="mailto:Michael.Tatusko@gcinc.com">Michael.Tatusko@gcinc.com</a>



# COSUMES BRIDGE REPLACEMENT



## SECTION ONE

Form F: Proposer's Disadvantaged Business  
Enterprise Declaration Affidavit

**Form F**  
**PROPOSER'S DISADVANTAGED BUSINESS ENTERPRISE  
DECLARATION AFFIDAVIT**

Name of Proposer: Granite Construction Company

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It is understood and agreed by the Proposer that it has carefully examined all documents that form this Request for Qualifications (RFQ) and acknowledges that California Department of Transportation (Department) will establish a Disadvantaged Business Enterprise goal based on the total project value for this CMGC Project. This affidavit further serves to confirm that Granite Construction Company will aggressively exercise Good Faith Efforts to the satisfaction of Department to meet the proposed Disadvantaged Business Enterprise goal and requirements defined in the Construction Contract documents, when issued.

STATE OF California

COUNTY OF Santa Cruz

Each of the undersigned, being first duly sworn, deposes and says that Richard M. Rantala  
(Contact Name)

is the Senior Vice President of Granite Construction Company, the entity making the foregoing Statement of Qualification.

The Proposer hereby affirms that it will either meet the Disadvantaged Business Enterprise goals described in this solicitation or exercise and provide demonstrable evidence to the satisfaction of the California Department of Transportation (Department) that it has aggressively exercised Good Faith Efforts to do so in accordance with defined program requirements, including contractual and regulatory provisions.



(Signature)

N/A

(Signature)

Richard M. Rantala

(Name Printed)

N/A

(Name Printed)

Senior Vice President

(Title)

N/A

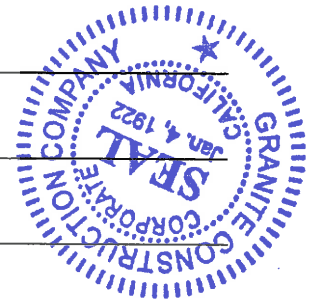
(Title)

State of California

See Attached California Jurat

County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.



Notary Public Signature

Notary Public Seal

*[Duplicate or modify this form as necessary so that it accurately describes the entity making the proposal and so that it is signed on behalf of all partners/members of the proposing firm.]*



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## JURAT

STATE OF CALIFORNIA }

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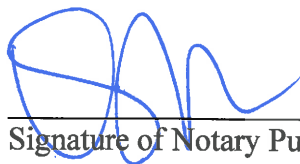
COUNTY OF SANTA CRUZ }

Subscribed and sworn to (or affirmed) before me on

this 1st day of June, 2018,

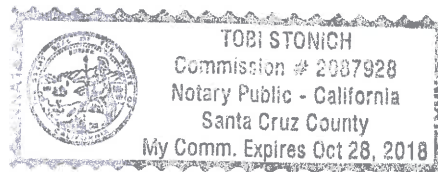
by Richard M. Rantala

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.



/Tobi Stonich

Signature of Notary Public





# COSUMES BRIDGE REPLACEMENT



SECTION TWO:  
FINANCIAL CAPACITY

## SECTION TWO FINANCIAL CAPACITY

Proposer's Ability to Secure Performance Bond  
and Payment Bond

Proposer's Ability to Secure Insurance





### *The Granite Advantage*

#### ► Financial Strength

#### ► Local Resources

#### ► Local Environmental

#### ► Local Quality

#### ► Local Team

#### ► Caltrans CM/GC Experience

## SECTION 2. FINANCIAL CAPACITY

Granite possesses the financial capacity to enter into a contract with Caltrans and the resources to successfully complete the Cosumnes Bridge Replacement Project. **We maintain an overall bonding capacity of \$5 billion and a capability of bonding a single project up to \$450 million.**

### A. PERFORMANCE BOND & PAYMENT BOND

Enclosed herein is a Surety Letter verifying our ability to secure the required Performance and Payment Bonds.

An added benefit to our financial strength is to support local small and disadvantaged businesses when required. We understand that cash flow is critical to the viability of these businesses and we have worked individually with small business owners to help remove financial barriers to increase their participation in state and federally funded contracts.

### B. INSURANCE CERTIFICATIONS

Attached within this section, is written evidence indicating our ability to obtain the following types of insurance: Commercial General Liability; Auto Liability; Workers' Compensation/Employers Liability and Pollution Liability. We understand policy limits will be specified in the Preconstruction Services Contract.



1 Tower Square, Hartford, CT 06183

June 1, 2018

State of California  
Department of Transportation  
District 3 Office  
Division of Project/Program Management  
703 B Street  
Marysville, CA 95901  
Attention: Doug Lange, Project Manager

**RE: Cosumnes Bridge Replacement Project - Section 1.15.1 Bond Requirement**

Mr. Lange:

The undersigned surety companies are pleased to execute contract bonds for Granite Construction Incorporated and its subsidiaries, including Granite Construction Company. The Principal has been provided with performance, payment, and warranty bonds since 1926. During that time, individual bonds have been underwritten in excess of \$450,000,000, while an aggregate work program well above that amount has been supported. Additionally, participation in joint venture projects has exceeded \$1 billion.

The aggregate bonding capacity is \$5,000,000,000; current available bonding capacity is \$1,900,000,000. It is the current intent of the sureties to provide 100% performance and payment bonds, subject to acceptable contract terms and conditions and underwriting conditions at the time the bonds are requested by Granite Construction Company.

Each of the surety companies is admitted to do business in the State of California and is rated "A-VIII" or better by A.M. Best Company.

We have the utmost confidence in the integrity and ability of Granite Construction Company and consider them to be one of the premier construction companies in the United States. We are pleased to give them our highest recommendation.

Sincerely,

TRAVELERS CASUALTY and SURETY COMPANY of AMERICA, A.M. Best Rating: A++ XV  
FEDERAL INSURANCE COMPANY, A.M. Best Rating: A++ XV  
THE CONTINENTAL INSURANCE COMPANY, A.M. Best Rating: A XV

Isabel Barron  
Attorney in Fact



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## ACKNOWLEDGMENT

State of California

County of Santa Cruz )

On June 1, 2018 before me, Tobi Stonich, Notary Public  
(insert name and title of the officer)

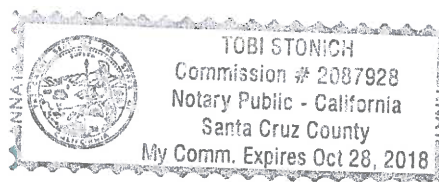
personally appeared Isabel Barron,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature   
Tobi Stonich, Notary Public

(Seal)





POWER OF ATTORNEY

**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

Attorney-In-Fact No. **232494**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Isabel Barron**, of the City of **Watsonville**, State of **California**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

*This Power of Attorney is limited to bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof for Granite Construction Incorporated and all subsidiaries and affiliates, alone or in joint venture.*

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this **3rd** day of **February, 2017**.

**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**



State of Connecticut

City of Hartford ss.

By:

Robert L. Raney, Senior Vice President

On this the **3rd** day of **February, 2017**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**In Witness Whereof**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2021**



Marie C. Tetreault, Notary Public



This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:


**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which will remain in full force and effect through December 31, 2018.



Kevin E. Hughes, Assistant Secretary



**To verify the authenticity of this Power of Attorney, call 1-800-421-3880 to contact us. Please refer to the Attorney-In-Fact number, the above-named individual and the details of the bond to which the power is attached.**



**Power of Attorney**

**Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint Isabel Barron, Jigisha Desai, John D. Gilliland, Kathleen Schreckengost, Ashley Stinson, Tobi Stonich of Watsonville, California

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business on behalf **GRANITE CONSTRUCTION INCORPORATED** and all Subsidiaries alone or in joint venture as principal, in connection with bids, proposals or contracts to or with the United States of America, any State or political subdivision thereof or any person, firm or corporation. And the execution of such bond or obligation by such Attorney-in-Fact in the Company's name and on its behalf as surety thereon or otherwise, under its corporate seal, in pursuance of the authority hereby conferred shall, upon delivery thereof, be valid and binding upon the Company.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this 24<sup>th</sup> day of July, 2017.

*Dawn M. Chloros*

Dawn M. Chloros, Assistant Secretary

*Stephen M. Haney*

Stephen M. Haney, Vice President



STATE OF NEW JERSEY

County of Hunterdon

SS.

On this 24<sup>th</sup> day of July, 2017 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that she is Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with Stephen M. Haney, and knows him to be Vice President of said Companies; and that the signature of Stephen M. Haney, subscribed to said Power of Attorney is in the genuine handwriting of Stephen M. Haney, and was thereto subscribed by authority of said Companies and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR  
NOTARY PUBLIC OF NEW JERSEY  
No. 2818805  
Commission Expires July 18, 2019

*Katherine J. Adelaar*

Notary Public

**CERTIFICATION**

Resolutions adopted by the Boards of Directors of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** on August 30, 2016

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Dawn M. Chloros, Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this June 1, 2018



*Dawn M. Chloros*

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:  
Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: [surety@chubb.com](mailto:surety@chubb.com)



# POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

**Know All Men By These Presents**, That The Continental Insurance Company, a Pennsylvania insurance company, is a duly organized and existing insurance company having its principal office in the City of Chicago, and State of Illinois, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**John D Gilliland, Jigisha Desai, Kathleen Schreckengost, Ashley Stinson, Tobi Stonich, Isabel Barron, Individually**

of Watsonville, CA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

## - In Unlimited Amounts -


and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the insurance company and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Board of Directors of the insurance company.

**In Witness Whereof**, The Continental Insurance Company has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 1st day of August, 2017.



The Continental Insurance Company

  
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 1st day of August, 2017, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of The Continental Insurance Company, a Pennsylvania insurance company, described in and which executed the above instrument; that he knows the seal of said insurance company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said insurance company and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance company.



My Commission Expires June 23, 2021

  
J. Mohr Notary Public

## CERTIFICATE

I, D. Johnson, Assistant Secretary of The Continental Insurance Company, a Pennsylvania insurance company, do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance company printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance company this June 1, 2018



The Continental Insurance Company

  
D. Johnson Assistant Secretary

## Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF THE CONTINENTAL INSURANCE COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company at a meeting held on May 10, 1995.

“RESOLVED: That any Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Group Vice President to the Secretary of the Company prior to such execution becoming effective.

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execution power of attorneys on behalf of The Continental Insurance Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012.

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”), Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/02/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> LIC #OC36861 1-415-403-1491 Alliant Insurance Services, Inc.  100 Pine Street, 11th Floor  San Francisco, CA 94111		<b>CONTACT NAME:</b> Kimberly Leikam <b>PHONE (A/C, No, Ext):</b> 415-403-1491 <b>FAX (A/C, No):</b> 415-874-4818 <b>E-MAIL ADDRESS:</b> kleikam@alliant.com																						
<b>INSURED</b> Granite Construction Company  585 West Beach Street  Watsonville, CA 95076		<table border="1"><thead><tr><th colspan="2">INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr></thead><tbody><tr><td>INSURER A:</td><td>VALLEY FORGE INS CO</td><td>20508</td></tr><tr><td>INSURER B:</td><td>CONTINENTAL CAS CO</td><td>20443</td></tr><tr><td>INSURER C:</td><td>TRANSPORTATION INS CO</td><td>20494</td></tr><tr><td>INSURER D:</td><td></td><td></td></tr><tr><td>INSURER E:</td><td></td><td></td></tr><tr><td>INSURER F:</td><td></td><td></td></tr></tbody></table>		INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	VALLEY FORGE INS CO	20508	INSURER B:	CONTINENTAL CAS CO	20443	INSURER C:	TRANSPORTATION INS CO	20494	INSURER D:			INSURER E:			INSURER F:		
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INSURER D:																								
INSURER E:																								
INSURER F:																								

**COVERAGES****CERTIFICATE NUMBER:** 51056486**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability <input checked="" type="checkbox"/> XCU Hazards GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:		GL 2074978689	10/01/16	10/01/18	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 2,000,000 MED EXP (Any one person) \$ Nil PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 10,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> Contractual		BUA2074978692	10/01/16	10/01/18	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		L2068209453	10/01/17	10/01/18	EACH OCCURRENCE \$ 8,000,000 AGGREGATE \$ 8,000,000 \$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N N/A	WC274978644 (AOS/Stop Gap) WC274978630 (CA) WC274978661 (MT,WI,HI) WC274978658 (NY)	10/01/17 10/01/17 10/01/17 10/01/17	10/01/18 10/01/18 10/01/18 10/01/18	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

FOR BIDDING/PREQUALIFICATION PURPOSES

Coverage does not exclude contractual liability for operations within (50) feet of any railroad hazard (Form CG 24 17 10/01)

GL Per ISO Form CG0001 10/01; AL Per ISO Form CA0001 10/13

**CERTIFICATE HOLDER**

5553  
  
For Information Only  
  
585 West Beach Street  
  
Watsonville, CA 95076

USA

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

# SUPPLEMENT TO CERTIFICATE OF INSURANCE

DATE  
10/02/2017

NAME OF INSURED: Granite Construction Company





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/03/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LIC #0C36861 Alliant Insurance Services, Inc. 100 Pine Street, 11th Floor San Francisco, CA 94111	1-415-403-1491	CONTACT NAME: Kimberly A. Leikam PHONE (A/C No. Ext): 415-403-1491 E-MAIL ADDRESS: kleikam@alliant.com FAX (A/C No): 415-874-4818
INSURED Granite Construction Company 585 West Beach Street Watsonville, CA 95076	INSURER(S) AFFORDING COVERAGE INSURER A: STEADFAST INS CO INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	
		NAIC # 26387

COVERAGES CERTIFICATE NUMBER: 51062296 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB EXCESS LIAB DED RETENTION \$	<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE				EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Pollution Liability	X X	EOC507892213	10/01/17	10/01/18	SEE LIMITS BELOW
A	Professional Liability	X X	EOC507892213	10/01/17	10/01/18	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Job #9000000 / For bidding &amp; prequalification purposes

Pollution Policy Limits: \$ 25,000,000 Each Incident and \$ 50,000,000 Aggregate  
Professional Policy Limits: \$ 25,000,000 Each Claim and \$ 50,000,000 Aggregate

## CERTIFICATE HOLDER

For Information Only

585 West Beach Street

Watsonville, CA 95076

USA

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

**SUPPLEMENT TO CERTIFICATE OF INSURANCE**

**DATE**  
10/03/2017

**NAME OF INSURED:** Granite Construction Company



# COSUMNES BRIDGE REPLACEMENT



SECTION THREE:  
SAFETY PROGRAM

## SECTION THREE SAFETY PROGRAM

Safety Record  
Workers Comp. Experience History  
OSHA Citations



## THE POWER OF SAFE CHOICES

**“Why and how do I make safe choices everyday? I constantly remind myself about my family at home waiting for me. My wife, son, and daughter on the way are the exact reason why I make safe choices at work.”**

► Alex Campos, Sacramento Foreman (pictured at right)



**At Granite, safety is not something we do in addition to the work – it is how we do the work.**

Our safety culture is based on the belief that everyone is entitled to a safe and healthy place to work. The responsibility for the health and safety of Granite’s employees goes far beyond compliance with Federal and State regulatory requirements.

Make it Personal  
Take It Personal

## SECTION 3: SAFETY PROGRAM

**Safety starts with a strong safety culture** - The prevention of accidents is more than just good business - it is our expectation. Our commitment to safety goes far beyond compliance with state and federal regulatory requirements. Safety is more than a priority at Granite – it is a core value. Our employees understand that safety is not something we do in addition to the work. It’s how we do the work.

Granite Maintains:

- An Experience Modification Rate of less than 1.0
- A Total Recordable Injury/Illness and Lost Work rate well below the business standard category.
- A robust Safety Program which is continually evolving for the ever-changing conditions of our work.

Safety is typically measured with numbers and statistics. Although these measurements are an effective tool to record safety data and required reporting to the various agencies, the real measure for Granite comes from the engagement and commitment of our employees. For a safety program to be successful, it must be exhibited by the culture of the organization and displayed in everything we do, from restocking paper in the office to building complex structures on the freeway.

Our commitment to safety starts each and every day before the work starts with a safety meeting attended by the entire craft and management staff. All subcontractors and vendors involved with the days’ tasks will be present and be active participants in the safety moment. We also encourage the owner’s representative to attend and provide feedback as well.



## The Granite Advantage

- **Industry Leading Safety Record**
- **Proven Safety Culture**
- **Subcontractor Training**



Safety can only succeed when we have full and complete commitment to the expectation that everyone will go home safe.

Each employee, from the craft worker to project principal, have the personal responsibility to follow and enforce all elements of Granite's Accident Prevention Program™ (APP). Our plan includes formal safety training, inspections, audits, and a formalized system of reporting. We train our managers, supervisors, and employees to identify and correct unsafe conditions and unsafe work practices. Further we empower each and every employee the ability to STOP WORK should they feel we are endangering our people, our assets or the traveling public. Each STOP WORK event is immediately followed by a job hazard analysis to assess the situation and ensure safe practices are followed or we implement a safer way to do the work.

**Public Safety** - It is Granite's expectation to construct the Cosumnes Bridge Replacement Project with zero accidents and incidents. This is not just for Granite personnel and subcontractors, but for project inspectors, and the general public. Access to unsafe areas will be restricted day and night. Traffic control will be setup and maintained by certified personnel.

Any incidents that may arise will be contained, properly handled and properly documented. Incidents will be reviewed and changes will be made, if required, to ensure a constantly safe project. Our onsite personnel will continuously coordinate with all stakeholders.

### SAFETY RECORD

#### Alternative Dispute Resolution System

Granite is not a party to an alternative dispute resolution system as provided for in Labor Code §3201.5.

#### CAL-OSHA and FOSHA Citations and Penalties

See attached as requested.

#### Worker's Compensation History

Granite's workers' compensation history is located on Figures 3.1 and 3.2 (at left).

**FIGURE 3.1  
SAFETY RECORD**

	2017	2016	2015
<b>GRANITE CONSTRUCTION TOTAL COMPANY</b>			
EMR/Workers Compensation	0.86	0.85	0.82
OSHA Recordable Incident Rate	1.09	1.29	1.21
Average Lost Work Rate	0.25	0.32	0.35
Total Man-hours	8,045,680	6,955,425	6,936,079

**FIGURE 3.2  
SAFETY RECORD**

	2017	2016	2015
<b>GRANITE CONSTRUCTION VALLEY REGION (SACRAMENTO)</b>			
EMR/Workers Compensation	0.86	0.85	0.82
OSHA Recordable Incident Rate	0.76	0.94	1.29
Average Lost Work Rate	0.25	0.31	0.51
Total Man-hours	789,905	639,310	772,586





**Granite Advantage for Safety:** Granite's award winning Safety Health and Management System has achieved many industry awards and commendations for our "Relationship-Based Safety" Program.

### Granite's Award-Winning Safety Program:

- ✓ AGC National and State Award Recognition
- ✓ AGC Zero Lost Time Accidents Award Winner
- ✓ Excellence in Safety/Best Safety Record
- ✓ MSHA - Safe Mining Operations
- ✓ OSHA Voluntary Protection Program Participant

## GRANITE'S ACCIDENT PREVENTION PROGRAM

Protecting our employees, the general public and the environment are essential to efficient and successful completion of every construction project we undertake. In accordance with our core values, every employee from craft worker to CEO has the duty and responsibility to follow and enforce all elements of Granite's Accident Prevention Program (APP). The APP sets the minimum safety standards for managers, supervisory personnel, craft employees and subcontractors. This Plan assigns responsibilities and standard procedures for hazard evaluation, requirements for employee/supervisor training, program enforcement, accident investigation and record keeping.



- **The Highway 20 "Pet Hill" project featured the construction of multiple new concrete box girders and bridges.**

### Work Zone Traffic Control and Public Protection for Transportation Projects:

For the Cosumnes Bridge Replacement Project, our team will develop a site-specific Traffic Control Plan (TCP) and comprehensive traffic control strategy tailored to the specific work zones. We will maintain traffic flow as close to normal highway situations as possible, avoid any frequent or abrupt changes in alignment, and minimize worker exposure time to traffic. We do not rely on minimum standards; we will continually evaluate construction work operations, site and traffic conditions to determine the appropriate level of traffic control measures. Additional information related to the Cosumnes Approach to Safety is located under Section 6: 3.7 (g) Safety, as requested.

**Relationship-based Safety with our People:** People drive our safety program from top to bottom. We expect our people to hold themselves and each other accountable to understand and follow the policies and procedures, underpinned with a robust and systematic training program.

**Safety Planning:** Planning is the core of our Safety Systems. Our safety planning process begins with our project teams assessing the risk of each scope of work and developing a job hazard analysis (JHA). Each JHA is logged into our online risk registry with lessons learned from past projects. This information is reviewed in an internal, mandatory meeting where our foremen, superintendents and safety professionals review the feasibility of the plan and provide feedback. If needed, revisions are made and the JHA/work plan is disseminated to every worker onsite. The JHA is used to develop our Take 5 Daily Safety Work Plan pre-shift safety briefings. The Take 5 is how we put our plan into action.



**THE POWER OF  
SAFE CHOICES**

#SAFETYWEEK

**“The choices we make - the ones we recognize and those we don’t - impact our co-workers, our community, and also our family and friends.”**

Each year, Granite is proud to join more than 80 companies, and thousands of workers for Construction Safety Week. While we focus on safety each day, Safety Week brings together office and field staff to focus on safety, and personally commit a safety pledge to make safe choices everyday.



► **17-Span SR 101L  
Flyover at SR 202L-  
SR 101L-Price Road  
Maze Interchange**

We also supplement our training program with weekly tailgate meetings on specific topics and initiatives. The weekly meetings are developed by our local safety department, customized to fit the audience. Our field information system (FIS) records and tracks all this information, drastically streamlining review and retrieval. The FIS helps us satisfy owner and regulatory inspection requirements, with less administrative burden to our safety professionals, enabling them to be in the field more. Subcontractors, vendors and visitors are included in this pre-construction meeting prior to being onsite, and are also required to hold their own Take 5's or attend ours.

**Safety Performance:** Performance is the result of the passion, hard work and dedication we put into the people and planning of our core principals. This is where we verify to make sure we are upholding our actions with the standard of safety we have committed to on paper. Inspections and observations are recorded on a daily basis by all levels of management. These custom checklists are reviewed weekly by the responsible manager to ensure the completeness and follow-up on resolving documented issues that couldn't be fixed immediately. Feedback is given based on quality, and if necessary, the lack of detail of issues identified. We strive to identify deficiencies before injuries and illnesses occur or regulators show up on our job.

**OHSAS 18001 Safety and Health Management System:** Within our OHSAS 18001 conforming Safety and Health Management System, it is the responsibility of all of our employees from senior leaders to foremen to invest in safety training, pre-construction meetings and to show support for the safety and health of our people. This framework empowers field-level leaders to instill safety throughout all levels of our company.

**Measuring Safety:** To document our efforts, we track each safety meeting or inspection with our monthly Core Safety Participation Report. This report tracks participation versus simply setting criteria for every employee. This is another way we set ourselves apart; we not only require participation, we track it and hold each other accountable for strong safety commitment each day.

**Increase Access to Safety with Technology:** To clarify expectations, provide additional guidance and improve accessibility to the field, new policies, procedures and guidance documents were developed through our Safety Systems Improvement (SSI) Task Force. The SSI Task Force received feedback from our employees in the field. Additionally, we invested in technology to more readily communicate with our field employees, using the Granite News App, which allows employees to report safety observations from their mobile device. Equipped with this information, we use business intelligence software to trend the safety data coming in from across our business real-time. We then tailor specific communications and training to help focus our efforts and drive specific injuries down that are currently occurring in the field.



► **Granite currently building the Hwy 99/198 Betty Drive Interchange in Visalia, California.**



► **Granite crews working on elevated structures over water during the Lost Creek Dam project near Marysville, CA.**

**New Employee Training:** Granite's safety plan begins with the hiring process. All employees are screened, drug tested, and subject to random testing. Every new hire must attend a safety orientation. On the jobsite, new hires are required to wear a red hard hat for a period of two months. This procedure calls attention to new employees on the jobsite, which allows more veteran employees to mentor newly hired workers in Granite's safety standards and procedures.

**Personal Protective Equipment:** Granite requires their employees and subcontractors to wear the following protective equipment on each jobsite without exception: shirts with sleeves, long pants, work boots, safety vests, hard hats and safety glasses. Additional protective equipment will be provided depending on the type of work being performed. This equipment may include gloves, ear plugs, face shields, toe caps, safety harnesses and lanyards.

**Construction Equipment:** All equipment used on this project will be maintained in safe working condition and will be appropriate and adequate for the intended use. Equipment will be operated only by authorized personnel who have received proper training. Equipment maintenance will be performed by qualified mechanics. Equipment will not be operated unless all required safety devices are in place and functioning properly. Careless, reckless or otherwise unsafe operation or use of equipment will result in discipline and may be grounds for termination. Equipment will be inspected by the operators at the beginning and end of each shift. Mechanics and equipment fueling personnel also perform inspections when maintaining the equipment.

**Excavation and Trenches:** Prior to starting the excavation, an evaluation of soil conditions and factors affecting its stability will be made to plan appropriate measures to safeguard persons and property from hazards of moving ground. To ensure the protection of all existing utilities, at least two working days before the start of the work, Granite will notify the USA North 811 to allow for the local utility locator's to mark their locations. We will also use ground penetrating radar as an additional utility locating resource when needed.

Work within excavations will always be under the immediate supervision of a competent person authorized to modify the shoring or sloping in accordance with State and Federal regulations. Our foremen will ensure safe practices in all excavations by performing daily inspections to identify and eliminate conditions that could result in possible cave-ins or failure of support systems. Inspections will be conducted before the start of work each day and after every rain event or other occurrence that may increase the hazard of moving ground.

**Jobsite Organization:** Part of Granite's site plan will include designated storage areas which will be maintained in a clean and orderly condition. Materials will be stored in such a way as to ensure stability. Jobsite waste and debris will be collected and removed to maintain a clean jobsite. When forming concrete structures all exposed rebar dowels and concrete stakes will be safety capped.





## SAFETY STARTS AT THE TOP

**Management lead accountability and a structured approach to safety discussions are key components of our safety culture. We aim to exceed—not just meet—all safety regulations.**



**Scheduled Safety Meetings:** The Superintendent and the Foremen conduct daily, weekly and monthly safety meetings and training programs with all employees. The topics discussed and employee attendance will be documented and filed with the project safety and training records. Prior to each shift, the Supervisors will review the hazards that may be encountered that day with all employees and discuss actions to minimize those hazards. At Granite, safety planning and execution is an everyday focus and is essential to a successful project.

**Subcontractor Safety Responsibilities:** Granite assures that subcontractors adhere to the project-specific JHA. All subcontractors meet with project staff before executing any work for the day. Subcontractors are required to establish an internal drug and alcohol program that includes pre-employment, post-accident, reasonable suspicion and random drug testing - mirroring the requirements of Granite.

Our approved project specific safety program will provide full detail of the risks and mitigation strategies to successfully construct a safe and successful project. This information will be available on the foreman's computer tablet and updates to the plan will update automatically. Some of the project specific safety issues include fall protection while building elevated structures, working over water and hand tools safety measures.

**Fall Prevention and Protection on Elevated Structures:** Employees working at elevated locations 6 feet or more above the ground must be protected by guardrails, safety nets or personal fall arrest systems. Work over the Union Pacific (UP) right of way and the Cosumnes River each present unique and differing risks.

UP expects construction methods to prevent track foul or risk of disruption to their operations. Granite is well versed in UP's expectations and have developed alternative means to avoid this potential and protect both project employees and the general public.

Elevated work over the Cosumnes River presents added risks due to the narrow work areas and sensitive environment within the improvement areas. Ingress/egress of employees and equipment in confined areas must be both planned and managed.



**Hand & Power Tools:**  
To reduce tripping hazards, over 90% of Granite's hand & power tools are cordless.

**Hand and Power Tools:** Bridge construction comes with higher man-hours and employees utilizing small power hand tools, all of which can elevate the risk of personal injury. To manage these risks, all hand tools must only be used by qualified operators, for their intended purpose and according to manufacturer's recommendations and must be maintained in safe working condition.

Hand tools have the potential of severe injury if not used properly. To improve our program, Granite invited our insurance partners to perform project audits seeking new and safer means to protect our employees. One of the innovations from a 2017 audit implemented new cordless hand tools. By removing the cords, we eliminated tripping hazards and improved ergonomics and productivity at our work sites.

Granite took this initiative further by performing a company-wide review and invited the various tool manufactures to further improve both tool performance as well as the safety aspects.

**Safety is more than a part of Granite's Core Values:**

The practice of safety has an ethical component. Ethics are about doing the right thing, not simply avoiding the wrong thing. Ethics-based safety strategy requires moral courage, conviction and professional unity, including a bottom-up approach at worksites, professional organizations, and understanding the need to look out for workers and the general public.

**NAMED 9 YEARS  
IN A ROW!**

**World's  
Most Ethical  
Companies**

2018 **WORLD'S MOST  
ETHICAL  
COMPANIES**  
WWW.ETHISPHERE.COM

**GRANITE**





February 12, 2018

Granite Construction Company  
585 West Beach Street  
Watsonville, CA 95076

RE: California Workers' Compensation Experience Modification Rate

To Whom It May Concern:

The following are the current and past two years of California Workers' Compensation Experience Modification Rates.

2017	.86
2016	.85
2015	.82

Do not hesitate to contact us with any additional questions.

Regards,

A handwritten signature in blue ink that reads "Kimberly Leikam".

Kimberly Leikam  
Account Executive  
Alliant Insurance Services, Inc. | Construction Services Group  
O) 415-403-1491  
kleikam@alliant.com | www.alliant.com  
CA License# 0C36861



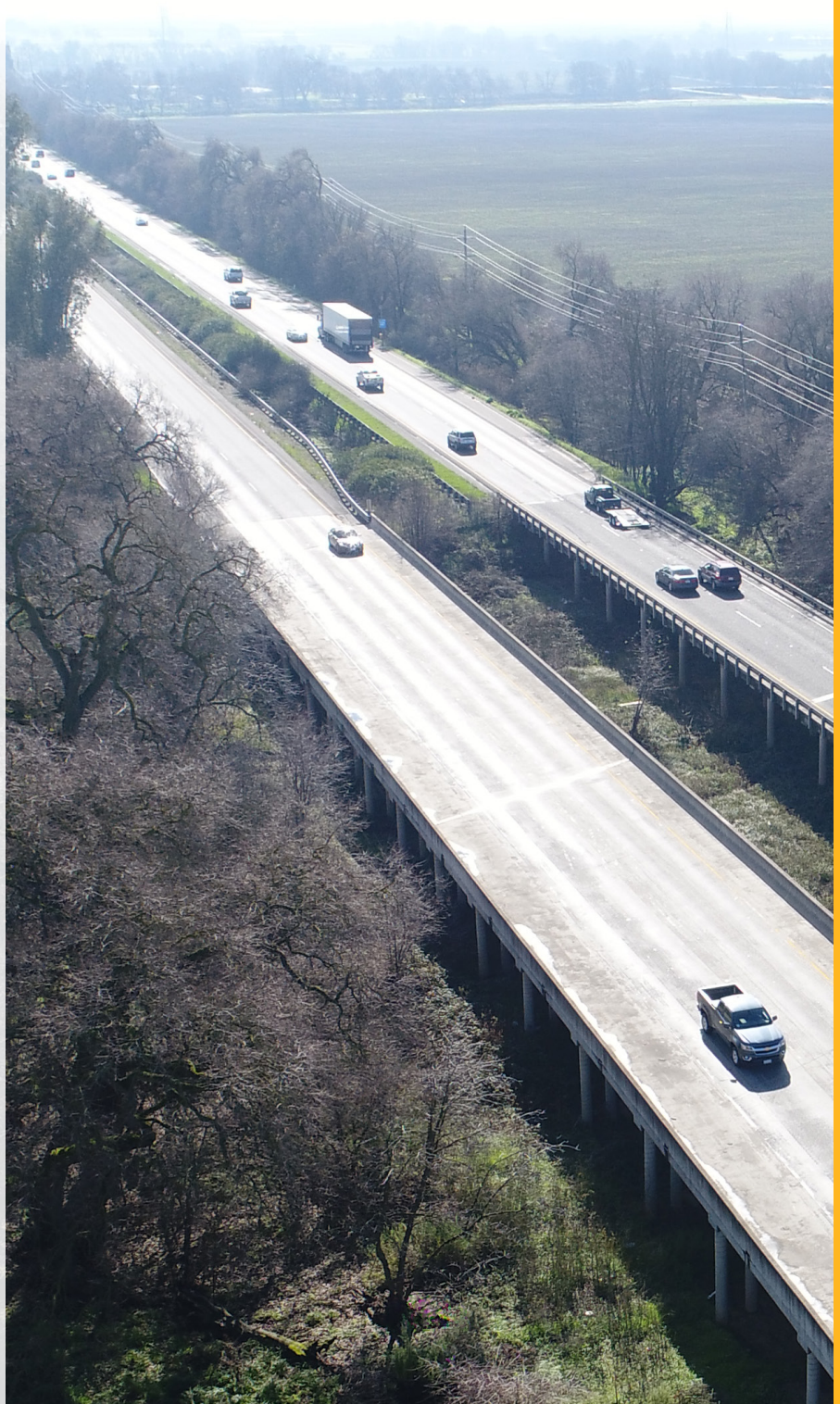
## Granite Construction Company

### Cal-OSHA & FOSHA

#### *Serious, Willful or Repeat Violations*

AGENCY	ISSUE DATE	BRANCH PROJECT	COMPANY	FACILITY NAME	INSPECTION NUMBER	CITATION NUMBER	SECTION CITED	SUMMARY	APPEAL CLASSIFICATION	FINE ASSESSED
CA/DOSH	02/11/16	Coastal	Granite Construction Company	Fort Bragg	1102825	1102825-2	1592 ( e )	Warning Methods	Serious	\$9,000.00

# COSUMNES BRIDGE REPLACEMENT



SECTION FOUR:  
FIRM EXPERIENCE &  
PAST PERFORMANCE

SECTION FOUR  
FIRM EXPERIENCE & PAST  
PERFORMANCE

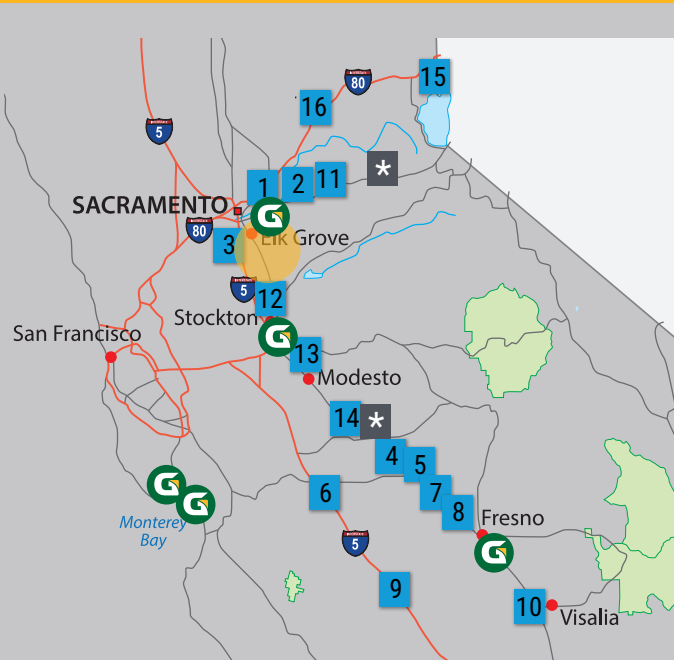


A. CAPABILITY AND CAPACITY

Granite has completed hundreds of highway projects throughout California and over \$680M directly with Caltrans over the past 5 years. As one of the nation’s largest heavy-civil contractors, Granite has delivered some of the most technically challenging and complex multi-bridge projects in the country. That said, we recognize that local Caltrans experience is a more important criterion to the Department. To that end, we have hand selected both our key project staff and list of Form B projects based on local team relationships & relevant Caltrans experience. We have also selected one Arizona DOT project to show additional relevant regional experience—the SR 202L is in nearby Phoenix, with similar specifications and maintaining connectivity to our proposed staff. This \$88M design-build project was a self-performed complex multi-bridge replacement and included innovative construction methods, accelerated schedule, utilities and traffic management that demonstrate strong similarities to the Cosumnes Bridge Replacement scope. Project Principal Mike Tatusko and Preconstruction Services Manager James Waller worked together on the SR 202L. Along with the team, Mike and James delivered this high-quality project safely, while on-time and on-budget. Figure 4.1 includes a partial list of our Caltrans/Caltrans oversight experience.

During our pre-proposal due diligence, we have already contacted many of the key Cosumnes project stakeholders. One Granite advantage is that these are people we already know. We have longstanding working relationships with PG&E, SMUD, UPRR, County of Sacramento, City of Elk Grove, the California Dept. of Water Resources, the U.S. Army Corps of Engineers, U.S. Fish & Wildlife, and most adjacent landowners. Figure 4.2 illustrates our experience managing projects of similar size & complexity to the Cosumnes Project on time, within budget, exceeding the project goals and without claims, litigation or arbitration.

FIGURE 4.1: VALLEY REGION'S CALTRANS LOCAL EXPERIENCE



Caltrans/Caltrans Oversight	
1	Hwy 50 Prairie City Interchange
2	Hwy 50 Overlay Sunrise to County Line
3	Hwy 5 Freeport Pavement Rehab
4	Hwy 99 Atwater Expressway
5	Hwy 99 Mission Blvd
6	Hwy 5 Pavement Rehab
7	Hwy 99 Madera Design/Build
8	Hwy 99 CM/GC
9	Hwy 5 Panoche Pavement Rehab
10	Hwy 99 Betty Drive Interchange
11	Hwy 50 Silva Valley Parkway Interchange
12	Hwy 99 Arch Road
13	Hwy 99 JPCP Pavement Rehab
14	Hwy 99 Stanislaus Pavement Rehab
15	I-80 Truckee River Canyon
16	I-80 Colfax to Alta
*	Caltrans ROW + Inspection - Local Agency
	Cosumnes Bridge Project Limits
G	Granite local offices

FIGURE 4.2: FIRM EXPERIENCE & PAST PERFORMANCE

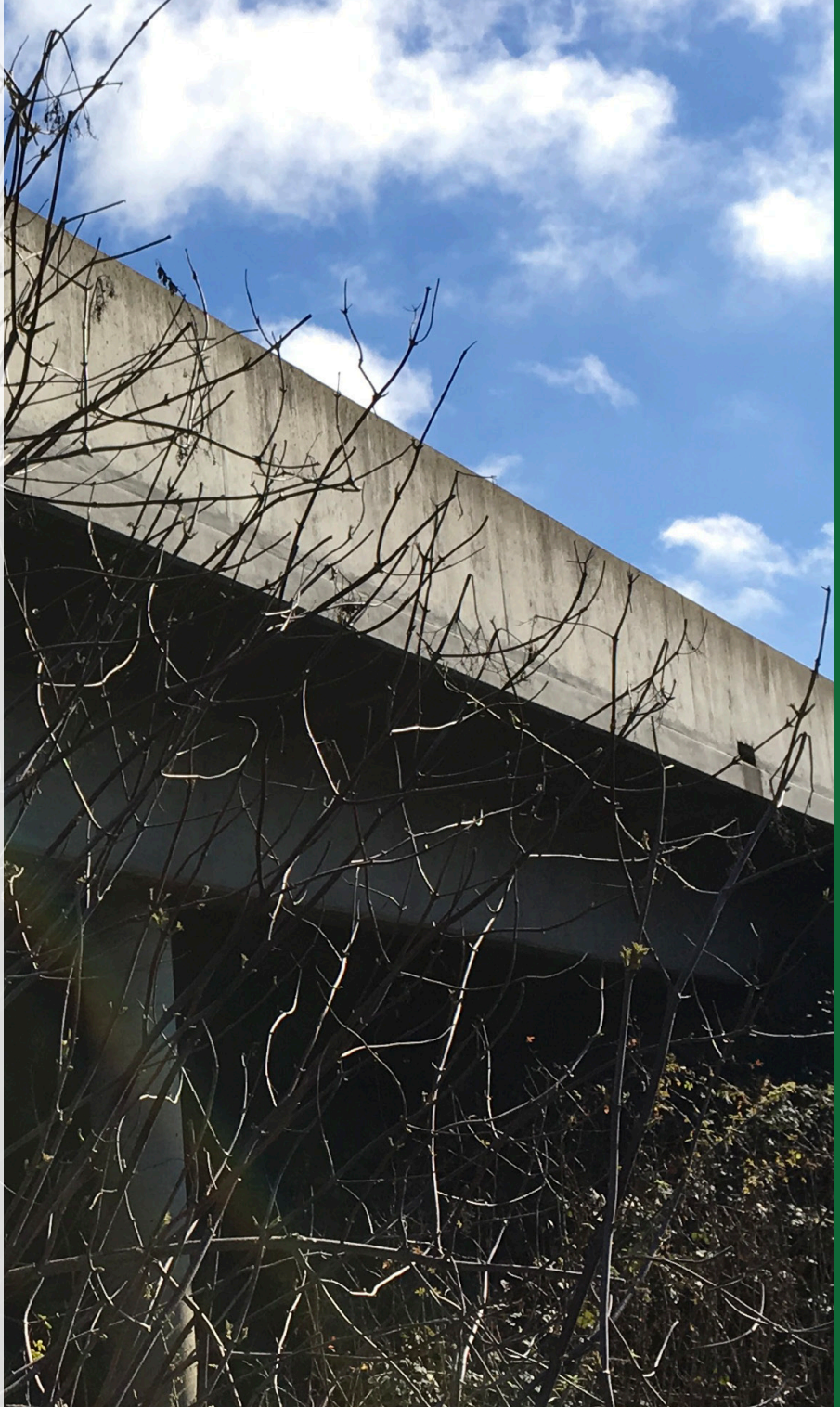
	Bridge Replacement or Repair	Environmental	3rd Party Stakeholders	UPRR Coordination	Same Key Personnel	RELEVANCY TO COSUMNES BRIDGE REPLACEMENT PROJECT	SCHEDULE DETAILS	BUDGET DETAILS
Route 99/198* <i>Anticipated Final Value: \$30,352,588</i> <i>Bid-Build Delivery</i>	✓	✓	✓	✓		- Self-performing all major items of work including all concrete structures which include a new box girder bridge over HWY 99.	- 84 WD's ahead of schedule - Partnering w/ Caltrans through the use of the VCEP process have netted 42 WD's of float.	- Currently anticipated to be \$1,313,000 under the original contract amount. - VCEP process enabled the State to save \$850K in structural section.
SR 99 Fresno* <i>Anticipated Final Value: \$128,000,000</i> <i>CM/GC Delivery</i>	✓	✓	✓	✓	✓	- Similar CM/GC project delivery process. - Close interaction with UPRR, including bridge work over tracks.	- Scheduled to complete on-time - Using several schedule recovery plans to keep the project on schedule despite 3rd party utility delays.	- This project is anticipated to be completed within the project budget.
SR 99 Fresno Precon & Early Work Package** <i>Final Value: \$28,372,278</i> <i>CM/GC Delivery</i>	✓	✓	✓	✓	✓	- Granite's CM/GC experience allowed the opportunity to make improvements before the final plans were issued.	- Early work package allowed the project to start on critical items before all of the ROW was acquired and the plans were complete.	- Work was completed with \$700,000 of contingency remaining in the project budget.
Hwy 20 "Pet Hill" Curve Realignment** <i>Final Value: \$35,435,191</i> <i>Bid-Build Delivery</i>	✓	✓	✓		✓	- Constructed 2 separate bridge structures (concrete box girder bridges). - Granite processed portions of the shot-rock and Class 2 Aggregate base.	- Dept. of Fish & Wildlife and the NID had restrictions for a portion of the year. - Granite worked with these agencies to develop solutions to keep the project on schedule.	- Original contract = \$33,297,792 - Final contract = \$35,435,191 - 6.4% overrun was due to add'l scope paid through bid item extensions, change orders for flagging & asphalt oil index adjustments.
I-5 Pavement Rehab Florin Road to County Line ** <i>Final Value: \$61,372,695</i> <i>Bid-Build Delivery</i>	✓	✓			✓	- Experience working on heavily congested roadways (Hwy 99 & I-5). - Focus on safety of workers & the motoring public.	- Finished within the specified working days with the majority of the work being completed at night to minimize impacts to the traveling public.	- Original contract = \$58,639,586 - Final contract was over by 4.6% due to Owner initiated added scope.
I-80 Colfax to Alta** <i>Final Value: \$46,493,629</i> <i>Bid-Build Delivery</i>		✓			✓	- Granite has the asphalt plants & aggregate sources to complete a project without delays due to the high demand of asphalt concrete and aggregate base.	- Completed in 132 working days. - Granite completed 228,571 tons of paving, over 100,000 CY of roadway excavation and 83,400 CY of Class 2 base in one summer season.	- Original Contract = \$44,030,029 - Final Contract = \$46,493,629 - 5.5% overrun was associated with Owner initiated added scope.
SR 202L HOV Lanes** <i>Final Value: \$88,709,423</i> <i>Design-Build Delivery**</i>	✓	✓	✓		✓	- Similar project team members include, Michael Tatusko, Project Principal & James Waller, Precon Mgr. - Experience working with designers on bridge replacements.	- The team completed two major fly-over connector bridges, a box girder bridge over Interstate 10, and 20 lane miles of new concrete pavement in 390 calendar days, including the design.	- Original budget for the design & construction was \$84.6M. - The final contract value was \$88.7M. Even with 5% added scope, the project finished on the original completion date.

\*Current project under construction \*\*Completed project. Form B included in this section.



# **COSUMES BRIDGE**

## **REPLACEMENT**



## **SECTION FOUR**

**Form B: Project Descriptions**

**Form B.**  
Project Descriptions

**Form B**  
**PROJECT DESCRIPTION**

**Name of Proposer:** Granite Construction

Instructions for Form completion: Form B is limited to a maximum of three (3) pages\* for each completed project.  
\*Updated to four (4) pages per Addendum 1 dated June 5, 2018.

<b>Name of Firm:</b> <u>Granite Construction</u>
<b>Project Role:</b> <u>Construction Manager/General Contractor</u>
<b>Firm's Office/Division/District which performed the work:</b> <u>Sacramento Valley Region based in Sacramento, CA</u>
<b>Other (Describe):</b> <u>N/A</u>
<b>Years of Experience (provide length of activity as it relates to the following three elements):</b> <b>Roads/Streets:</b> <u>96</u> <b>Bridges/Structures:</b> <u>96</u> <b>Utility Relocations:</b> <u>96</u>
<b>Project Name, Location, and Nature of Work for Which Company Was Responsible:</b>
<b>SR 99 Fresno CM/GC: Preconstruction Services (06-2HT1CM) &amp; Early Work Scope (06-2HT114)</b>
Fresno, CA
Granite is the CM/GC prime contractor for two miles of freeway reconstruction, interchange reconstruction, overhead structures at UPRR tracks, reconstruction of city streets, wet/dry utility relocation, street lighting and signals, and updated ITS features. This project is led by our <b>Senior Project Manager, George Delano</b> .
<b>Provide Project Description and Describe Site Conditions:</b>
<ul style="list-style-type: none"><li>• Accommodates the new California High Speed Rail Authority (CHSRA) corridor between the existing freeway and the UPRR.</li><li>• Urban freeway reconstruction with three lanes and one auxiliary lane for each direction of travel on SR 99, a reconfigured interchange at Clinton Avenue, which include replacing the Clinton Avenue overcrossing, and new overhead structures that span the railroad tracks at Clinton and Ashlan Avenues.</li><li>• The Preconstruction Service Contract (PCS) totaled \$2.4M; work completed July 2016.</li><li>• The Early Work Scope (EWS) was a \$28M, 205 working days contract completed in January 2017, which included relocating utilities and rebuilding on and off ramps and City streets to accommodate detoured traffic for the \$128M main contract phase of the project. This project overlapped the main contract by 54 working days.</li></ul>
<b><u>3.5.1 (a) Experience in successfully managing and constructing projects of similar size and complexity</u></b>
The overall SR 99 Fresno CM/GC project is similar in size and complexity to the Cosumnes Bridge Replacement project. The EWS work type is similar with 33,600 CY of roadway excavation, 3,300 CY of JPCP, 14,000 tons of HMA, 12,000 LF of storm drain, and 3,700 LF of concrete barrier. There was \$1.3M in traffic electrical and sign structure work, \$140K in traffic signing and striping, and \$825K in stage construction and traffic handling. The structures work included two precast girder bridge widenings and nine retaining walls.
The SR 99 Fresno project was very complex, involving multi-stage construction of freeway auxiliary lanes, on and off ramps, bridges, retaining walls, city streets, and the associated utilities. There was significant interaction with UPRR, utilities, and local agencies. Traffic management was coordinated with adjacent Caltrans contracts and the City of Fresno. The EWS project was delivered on time including \$1.4M in scope transferred from the main contract.



## Form B

### PROJECT DESCRIPTION

#### 3.5.1(b) Experience in complex multi-bridge replacement project with railroad, environmental, regulatory, local agency, and public stakeholder involvement.

The EWS project widened multiple freeway bridges and constructed nine concrete retaining walls. Working relationships were developed with UPRR operations during preconstruction services to allow 18-hour “mega-windows” to accelerate the bridge demolition over the tracks for the \$128M main contract phase. Environmental considerations included SWPPP efforts over the two mile project, noise and dust control, nesting bird considerations, and job specific training for kit fox and paleontology requirements. Regulatory requirements included the normal safety, air board, SWPPP, and local agency concerns as well as extensive monthly reporting requirements to the CHSRA for their carbon neutral program, and 30% SB/DBE/DVBE participation goals. Local agency coordination was required with the City of Fresno, the Fresno Municipal Flood Control District, and first responder communication with fire, police and ambulance, local public transit, and local schools. The public was involved as an active stakeholder during preconstruction services with the Caltrans/Granite team conducting public meetings to gain acceptance for the single stage six month closure of Clinton Avenue in the main contract in lieu of the original 18-month three phase plan.

#### 3.5.1 (c) A record of completing contracts on time and within the fixed price.

**Senior Project Manager, George Delano**, led the EWS contract to completion on time and within the project budget, with \$700K left in the contingency balance that was transferred to the main contract budget. Work from the main contract was transferred to the EWS to maintain third party schedule commitments and to avoid schedule delays from nesting bird restrictions on clearing.

#### 3.5.1 (d) Managing contracts to minimize delays, claims, dispute proceedings, litigation and arbitration.

Advanced planning by the project team and tight adherence to the project schedule resulted in near flawless execution of the contract work. The rapid progress assisted the preconstruction services efforts to acquire necessary parcels for the main contract work by convincing adjacent landowners to complete property negotiations quickly. A delay by the CHSRA in gaining the required biological clearance for a nearby stockpile site was mitigated by resequencing the work and finding an alternate stockpile location. The Caltrans/Granite team resolved all issues without the need to file a PCR or bring any issues before the DRB, and there was not any litigation or arbitration.

#### 3.5.1 (e) The technical and management experience and expertise to plan, organize, and execute the construction of, and assure the quality and safety of the Project.

**Senior Project Manager, George Delano** is a Professional Civil Engineer with 38 years of heavy civil and structures experience, most of it on Caltrans contracts. He drew on Granite’s experienced Valley Region staff to form a very strong team that prepared the work plans, subcontractor oversight, and the detailed schedule for a successful project. That team worked closely with Caltrans to execute the work plans and address the challenges - revising design details, continuing to innovate and revising work plans as needed. Caltrans Construction Office Chief, Mike Weber, has said that the, “Caltrans/Granite team can solve any problem that arises and minimize the risk involved. All of this was done without compromising quality or safety.” Granite has a very strong quality and safety culture, with regional and corporate resources available on demand. There was no rework on the EWS project, and Granite crews had zero OSHA incidents.

#### 3.5.1 (f) The ability to effectively manage all aspects of contracts in a quality, timely and effective manner and integrate the different parts of its organization with the Department in a cohesive and seamless manner.

Open communication and mutual trust allowed the Caltrans/Granite team to work together seamlessly as a cohesive unit. The Caltrans/Granite team worked so well together that outside stakeholders said that it was difficult to tell who worked for the contractor and who worked for the State. Schedules, work plans, and submittals have been prepared and approved in advance of the work. Detailed six week schedules are discussed at weekly progress meetings that include status updates on third party impacts, submittals, RFI’s, quality, safety, potential changes, change orders,



## Form B

### PROJECT DESCRIPTION

survey requests, SWPPP, weather, lane closures, and action items. Regular working sessions are held at the co-located Caltrans/Granite offices to keep the contract documents up to date, submittals processed timely, work plans coordinated, change orders processed, and extra work bills processed.

#### **3.5.1 (g) Innovative solutions to accelerate construction and minimize impacts to the traveling public**

During the Preconstruction Services phase, Granite worked with the Caltrans design group to accelerate construction and minimize impacts to the traveling public. The entire concept surrounding multiple GMP's and establishing the EWS was to minimize impacts to the traveling public. A multi-phase tie-in sequence for the new mainline pavement was simplified and eliminated an entire construction stage and reduced traffic impacts by four months. The planned 18-month multi-stage reconstruction of the Clinton Avenue bridges was reduced to a single six-month full closure replacement that saved over a year of traffic impacts. The EWS contract was implemented to get the project started earlier and added auxiliary lane capacity to the traveling public sooner.

On the Early Work Scope contract, the Granite team continued with innovation and removal of unnecessary scope to save the project \$500K. \$1.4M in retaining wall construction and tree removal work was strategically shifted from the main contract scope to the EWS to maintain schedule and avoid delay.

#### **Additional Required Information:**

##### **- Implementation of complicated staging and traffic control handling**

The implementation of revised traffic patterns for staging included verification of the planned geometry with existing conditions and the required work area, preparation of traffic switching work plans and coordination with Caltrans, and review of the traffic flow after implementing the new pattern to allow minor adjustments.

Traffic control handling is a daily activity. Equipment positions were checked for adequate sight distance and merging movements. Advance warning devices gave the public general information prior to the work shift. Lane closure schedules were requested in advance with Caltrans and coordinated with adjacent contracts, then updated as conditions changed. Full-time certified traffic control technicians installed, monitored, maintained, and removed the lane closures, staying in communication with the work crews and Caltrans.

##### **- Coordination of complex utility relocation as well as construction of municipal utilities**

The SR 99 required significant utility relocations including PG&E gas and electric facilities, AT&T telephone and data lines, and Comcast communication lines. The project also included removal and construction of sewer and water for the City of Fresno, storm drain for the Fresno Municipal Flood Control district, and installation of new AT&T duct banks.

All major utility companies and municipal agencies were invited to partnering sessions. The CPM schedule from the preconstruction phase was used to identify utility relocation priorities and schedule relocations with the utilities. Individual planning sessions were held with each utility to verify the work involved and the planned schedule. Utility representatives were invited to the weekly progress meetings for status updates and resolution of coordination issues. Multiple AT&T service cutovers were successfully coordinated, as well as an overhead relocation of the PG&E main powerline over the freeway at McKinley Avenue.

Water and sewer reconstruction needs were communicated with the City of Fresno during preconstruction services and then coordinated during construction, including the installation of 16-inch jacked waterline main in casing under the UPRR switching yard. Submittals were prepared for the City review and inspections and tie-ins were coordinated at weekly progress meetings.

##### **- Experience of team members working together as an integrated team**

Granite and Caltrans formed a high performance team on the SR 99 Fresno CM/GC project, with consistent partnering scores in the 8-9 range. That relationship and trust was started during the preconstruction services phase with shared project goals and a truly open book and transparent estimate. The relationship was carried forward into the construction phase, fostering open communication and a high degree of mutual trust that allowed the

## Form B

### PROJECT DESCRIPTION

Caltrans/Granite team to work together as a cohesive unit. Co-located offices promoted frequent communication and interaction. A shared sense of responsibility and commitment for the good of the project has been the foundation for successfully building the project.

- **Coordinating work with adjacent contracts**

The adjacent CHSRA CP-1 contract tied onto our project. Monthly coordination meetings were held with Caltrans, Granite, CHSRA and TPZP (the CP-1 contractor). Lane closures and adjacent work scopes were coordinated with adjacent Caltrans contracts with detailed weekly look-ahead schedules. Priority for lane closures was directed by Caltrans and lane closures were shared when possible.

- **Environmental regulations/permit requirements**

Environmental considerations included SWPPP efforts over the two mile project, emission reporting to the air board, noise and dust control, nesting bird considerations, and job specific training for kit fox and paleontology requirements. Regulatory compliance also includes extensive monthly reporting requirements to the CHSRA for air emissions on all off road equipment and job deliveries, and recycled product usage for their carbon neutral program.

- **Experience in coordination with local and regional agencies on similar sized projects**

The SR 99 Fresno CM/GC project was located on a heavily traveled and congested portion of freeway, with major impacts to the City of Fresno surface streets. The City representative attended all weekly meetings. Significant efforts were made to communicate the project schedule and work scope to the general public, including impacts to local schools and adjacent property owners and businesses. Granite had participated in multiple public meetings, both in the preconstruction services phase and continuing into construction. All local agencies with public services and first responders were included in a general information and coordination meeting at the start of construction and updated work schedules affecting their operations and were shared on a regular basis

#### **List Any Awards, Citations, and/or Commendations Received for the Project:**

Caltrans Partnering in Motion – Gold Winner  
Granite National Large Project Safety Award

**Name of Client (Owner/Agency, Contractor, etc.):** Caltrans District 06

**Address:** 2015 E. Shields Avenue, Suite A-100, Fresno, CA 93726

**Contact Name:** Mike Weber, Construction Office Chief

**Telephone:** (559) 246-9422

**Email:** michael.weber@dot.ca.gov

**Owner's Project or Contract No.:** 06-2HT114

**Contract Value (US\$):** \$26,587,424

**Final Value (US\$):** \$28,372,278

**Reason for Variance:** Owner added scope (See narrative 3.5.1 c)

**Percent of Total Work Performed by Company:** 50%

**Commencement Date:** 12/2015

**Planned Completion Date:** 09/2016

**Actual Completion Date:** 01/2017

**Amount of Claims:** 0

**Any Litigation?** Yes \_\_\_\_ No X

**Claim Summary:** 0

**DRB History:** Quarterly status meetings only

## Form B

### PROJECT DESCRIPTION

**Name of Proposer:** Granite Construction

Instructions for Form completion: Form B is limited to a maximum of three (3) pages\* for each completed project.  
*\*Updated to four (4) pages per Addendum 1 dated June 5, 2018.*

<b>Name of Firm:</b> <u>Granite Construction</u>
<b>Project Role:</b> <u>Prime Contractor</u> <b>Firm's Office/Division/District which performed the work:</b> <u>Granite Construction Valley Region, Sacramento Office</u>
<b>Other (Describe):</b> <u>N/A</u>
<b>Years of Experience (provide length of activity as it relates to the following three elements):</b> <b>Roads/Streets:</b> <u>96</u> <b>Bridges/Structures:</b> <u>96</u> <b>Utility Relocations:</b> <u>96</u>
<b>Project Name, Location, and Nature of Work for Which Company Was Responsible:</b>
<b>Hwy 20 "Pet Hill" Curve Realignment (Caltrans Project 03-1A5304)</b>
<u>Smartsville, CA (Nevada County)</u>
Granite was the prime contractor for this four-mile long State highway widening and curve realignment, including extensive earthwork, multiple bridges and box culverts, HMA pavement, storm drain, and waterline replacement.
<b>Provide Project Description and Describe Site Conditions:</b>
<p>The Highway (Hwy) 20 –“Pet Hill” project was a bid-build contract for Caltrans District 3 and constructed by the Sacramento Valley Region office. The \$35.4M four-mile long project, located between Grass Valley and Marysville, California, was built to increase safety on existing narrow winding alignment. The project was on an important regional traffic artery in rough, rocky terrain and has multiple crossings of sensitive watersheds.</p> <p>Major features of the project included one mile of new alignment, 1.6 miles of passing lane, a number of turn pockets for side roads, substantial elimination of rock faces within 12 feet of traffic, installation of 1.7 miles of temporary and permanent waterline, and construction of <b>multiple concrete box girder bridges and box culverts</b>.</p> <p>Beyond the remote site location and the existing narrow roadway, significant challenges in the construction of the project included:</p> <ul style="list-style-type: none"> <li>Working through two wet seasons to relocate the Nevada Irrigation District (NID) systems</li> <li>Building all bridges and box culverts in a single six-month window to avoid environmental impacts</li> <li>Construction of 54 separate drainage systems with over 40,000 LF of RCP storm drain</li> <li>Installing and removing three separate stream diversions</li> <li>Roadway excavation totaling 215,000 CY</li> <li>Blasting approximately 110,000 CY of roadway and structure excavation</li> <li>Placing of 52,000 tons of asphalt pavement</li> <li>Managing multiple subcontractors and DVBE's</li> </ul>
<b><u>3.5.1 (a) Experience in successfully managing and constructing projects of similar size and complexity.</u></b>
This District 3 project has similarities to the Cosumnes Bridge Replacement project with the sensitive environment, limited access in and around constant traffic, and unforgiving seasonal schedule constraints. Granite crews self-performed construction of the bridges and box culverts, roadway excavation, storm drain, NID water systems, grading, and HMA paving. The Hwy 20 project was successfully managed by <b>Project Manager George Delano</b> ,



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completing 80% of the work in just nine months at a burn rate of \$3M per month. Timing was critical to allow relocation of the conflicting NID water systems in the winter months before completing the bridges, roadway excavation, storm drain, and grading and paving the following summer. Changing curvatures over the existing roadbed required significant deep lift HMA cross slope corrections while maintaining traffic and producing a smooth final product. Traffic was a constant concern since most of the road work required one-way reversing traffic control and tight blasting windows at multiple locations within the project at the same time without an easy alternate route.

#### 3.5.1(b) Experience in complex multi-bridge replacement project with railroad, environmental, regulatory, local agency, and public stakeholder involvement.

The Hwy 20 project included two box girder bridges and a separate NID water system bridge over environmentally sensitive watersheds with protected species and a limited season work window. Stream diversions and biological habitat reviews were coordinated with the California Department of Fish and Game. Impacts to the watersheds were subject to the California Regional Water Quality Board and the US Army Corps of Engineers. Water system replacement and outages required close coordination with the NID. Traffic handling plans and lane closures were coordinated with the local residents, businesses, emergency first responders, and public traffic notification liaisons as well as regional special events like “Hot August Nights” in Reno, NV.

#### 3.5.1 (c) A record of completing contracts on time and within the fixed price.

Granite has an industry reputation of being an on-time, on-budget contractor. As discussed above, the Hwy 20 Pet Hill project had an unforgiving schedule that required careful planning to hit all the milestones. Under **George Delano’s** leadership, Granite carefully planned an aggressive schedule, worked multiple locations concurrently to get ahead of that schedule and never backed off. The Hwy 20 project was completed **26 days ahead of schedule** and under the original budget plus contingency. The project cost increased \$2.1M (6.4%) due to bid item quantity adjustments and owner initiated changes, including flagging costs and asphalt oil index adjustments. Granite successfully proposed and implemented multiple cost saving ideas totaling over \$400K for Caltrans’ benefit, including raising bridge foundations in rock excavation, revising project phasing and traffic handling plans, and revising drainage systems.

#### 3.5.1 (d) Managing contracts to minimize delays, claims, dispute proceedings, litigation and arbitration.

Every project has its challenges and surprises – the key to success is to anticipate potential issues and have a mitigation plan in hand. A relationship of open communication, honesty, and trust will allow most issues to be solved fairly and minimize the ultimate cost to all. For example, in the first month of work on the project the very first large slope cut intended for use in the time critical abutment fills was found to have un-rippable rock in an area designated as rippable. Blasting was not anticipated in this area and so blasting plans were not yet available, jeopardizing the project schedule. Granite immediately changed course and started another cut area to generate the needed fill material while the first cut was broken up with hoe-rams. Other cuts designated as un-rippable were found to not require blasting, so in fairness no claim was pursued. In another case, the designated site for a large temporary stockpile would have blocked a sizeable watershed, requiring unplanned expensive temporary drainage and SWPPP measures. Granite worked with Caltrans to identify a different stockpile site and avoid the potential environmental issues and cost, reducing risk and cost to the project. Granite works very hard to resolve all issues at the field level. Although Hwy 20 did present its host of challenges, Granite and Caltrans were able resolve all issues at the project level and the project **did not have any dispute hearings, litigation or arbitration.**

#### 3.5.1 (e) The technical and management experience and expertise to plan, organize, and execute the construction of, and assure the quality and safety of the Project.

The unforgiving seasonal constraints on the Hwy 20 Pet Hill project schedule required careful planning and decisive execution. Our **Project Manager, George Delano**, developed the CPM project schedule and maintained detailed weekly work schedules to ensure the timely completion of the project. Additional crews were mobilized to allow

## Form B

### PROJECT DESCRIPTION

working at multiple locations at the same time. George and his project staff developed all traffic handling and work plans, coordinating with Caltrans and local agencies to expedite the work and minimize impacts to the traveling public. Even with the expedited schedule, quality did not suffer. Using experienced crews and keeping constant communication with the Caltrans inspection staff minimized potential quality issues, and any issues that were discovered were promptly repaired without argument. Quality bonuses for HMA production and compaction were routinely achieved. This project was **completed safely and ended with zero incidents in 2008**. This same work planning, scheduling, and attention to quality and safety will be brought to the Cosumnes Bridge Replacement project.

#### **3.5.1 (f) The ability to effectively manage all aspects of contracts in a quality, timely and effective manner and integrate the different parts of its organization with the Department in a cohesive and seamless manner.**

The Granite staff worked closely with their Caltrans counterparts to manage the daily, weekly, and monthly tasks to keep the project running smoothly. Granite crews and engineers coordinated with their Caltrans inspectors every day on the work to be done, starting with a joint safety and planning meeting at the start of each shift. Weekly project progress meetings were held jointly at the Caltrans office to cover the detailed three week schedule and discuss all important issues. Meeting minutes and action items were developed and distributed from each meeting with the Caltrans/Granite team holding each other accountable. Granite and Caltrans met monthly to go over progress pay estimates and extra work billings to minimize errors and avoid backlogs. The Hwy 20 Pet Hill team developed a collaborative and cohesive relationship that allowed the project to progress efficiently and keep issues resolved in a timely manner.

#### **3.5.1 (g) Innovative solutions to accelerate construction and minimize impacts to the traveling public.**

As discussed above, this heavily traveled section of Hwy 20 required multiple staging plans and traffic accommodations. Through innovations and accelerated scheduling, the Granite/Caltrans team was able to open the new roadway to traffic early and minimize traffic impacts. The Stage 4 traffic handling plans and geometry were completely revised by Granite with input from District 3 designers to eliminate a restrictive “fill in the middle” split alignment construction phase that would cut off cross traffic (including first responders) for at least 2 months. Temporary road sections were strategically placed to allow the work to be completed in fewer phases, less time, and minimize impacts to the traveling public. Two change orders were written to implement the changes and provide a credit to Caltrans.

#### **Additional Required Information:**

##### **Implementation of complicated staging and traffic control handling**

Hwy 20 is a main thoroughfare connecting I-80 traffic through the Sierra Mountains to Hwy 70 and Hwy 99 in the Sacramento Valley. It is similar to the Cosumnes Bridge Replacement in that a convenient detour did not exist and traffic had to be maintained with minimal disruption. The project plans detailed five traffic handling stages requiring multiple traffic shifts and daily, one- way reversing traffic control in multiple locations concurrently. Granite flagging teams were dispatched daily to maintain public traffic throughout the project. Granite developed alternate plans to reduce project stage requirements and traffic switches to minimize traffic impacts and expedite the work. The project team also controlled traffic during blasting operations with maximum 30-minute highway shut downs to set off the blast and clear the road to ensure the safety of the crews and traveling public.

##### **Coordination of complex utility relocation as well as construction of municipal utilities**

The NID's main water supply for this area crossed the existing and new roadway alignment and had strict limits on the number and length of allowable shut down periods. Granite installed a 4,000 LF, 30-inch temporary bypass siphon to maintain the water supply while two permanent siphons and a stream crossing bridge were constructed through the irrigation season. Granite worked closely with the NID to plan, install and maintain this water supply throughout the life of the project.

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**Experience of team members working together as an integrated team**

Partnering was not formally required for the Hwy 20 Pet Hill project; however the team worked in a cohesive and collaborative atmosphere and developed mutual respect and trust. Every successful project shares the common theme of exemplary project relationships. Open and direct communication and fair dealing on project issues established a baseline of trust early in the project when inconsistencies in the project plans were identified. A shared sense of ownership was demonstrated time and again; the "Project First" mentality reinforced the professional working relationship and formed an integrated Caltrans/Granite team.

**Coordinating work with adjacent contracts**

Work for this project was scheduled to avoid conflict with other work within the corridor as well as heavy traffic for "Hot August Nights". Granite worked with the other projects in order to coordinate truck traffic, rock blasting activities, lane closures, and special traffic needs for ongoing events. Granite maintains relationships with all major California contractors and agencies. These long-standing relationships are crucial when coordinating for concurrent construction activities.

**Environmental regulations/permit requirements**

The Hwy 20 Pet Hill project had many environmentally sensitive areas with strict requirements in the permits from the California Department of Fish and Game (CDFG), the US Army Corps of Engineers (USACE), and the general SWPPP requirements of the California Regional Water Quality Control Board (CRWQCB). Multiple bridges, box culverts, and drainage systems had work in the stream zone of Slacks Ravine. No excavation in the live stream zone was allowed, so stream diversions and dewatering plans were submitted and approved by the CDFG. Tree and shrub removal was limited to non-nesting periods and the project was surveyed multiple times by a qualified biologist to check for nesting birds. Water wells that were to be abandoned required special notices to the Department of Water Resources. Granite performed all SWPPP requirements in accordance with CRWQB permit requirements. No citations or fines were incurred on this project.

**Experience in coordination with local and regional agencies on similar sized projects**

Granite worked collaboratively with the County, NID and local businesses to minimize project impacts. All necessary permits, including air and water quality and aggregate crushing, were obtained by Granite without delay or issue. Requirements of the USACE and CDFG permits for the project were strictly adhered to and constantly evaluated for potential project issues.

**List Any Awards, Citations, and/or Commendations Received for the Project:**

N/A

**Name of Client (Owner/Agency, Contractor, etc.):** Department of Transportation District 3

**Address:** 703 B Street, Marysville, CA 95901

**Contact Name:** Troy Scheiber, RE

**Telephone:** (209) 948-3966 **Fax No:** (209) 948-3980

**Email:** Troy.Scheiber@dot.ca.gov

**Owner's Project or Contract No.:** 03-1A5304

**Contract Value (US\$):** \$33,297,792.00

**Final Value (US\$):** \$35,435,191.13

**Reason for Variance:** Owner added scope (See narrative 3.5.1 c)

**Percent of Total Work Performed by Company:** 80%

**Commencement Date:** 1/2007

**Planned Completion Date:** 400 WD

**Actual Completion Date:** 374 WD 8/2008

**Amount of Claims:** None

**Any Litigation?** Yes ☐ No ☒

**Claim Summary:** None

**DRB History:** Progress meetings only



**Form B**  
**PROJECT DESCRIPTION**

**Name of Proposer:** Granite Construction

Instructions for Form completion: Form B is limited to a maximum of three (3) pages\* for each completed project.  
\*Updated to four (4) pages per Addendum 1 dated June 5, 2018.

<b>Name of Firm:</b> <u>Granite Construction</u>
<b>Project Role:</b> <u>Prime</u>
<b>Firm's Office/Division/District which performed the work:</b> <u>Granite Construction Valley Region, Sacramento Office</u>
<b>Other (Describe):</b> <u>N/A</u>
<b>Years of Experience (provide length of activity as it relates to the following three elements):</b> <b>Roads/Streets:</b> <u>96</u> <b>Bridges/Structures:</b> <u>96</u> <b>Utility Relocations:</b> <u>96</u>
<b>Project Name, Location, and Nature of Work for Which Company Was Responsible:</b>
<b>I-5 Pavement Rehabilitation Florin Road to County Line</b>
Elk Grove, CA
Highway Pavement Rehabilitation
<b>Provide Project Description and Describe Site Conditions:</b>
<p>The Interstate-5 (I-5) Elk Grove project, a 17-mile long stretch, is located on I- 5 in Sacramento County in Elk Grove. With over 79 net lane miles, the job started at the San Joaquin County Line and terminated at the I-5/Florin Road overcrossing. This project was led by our <b>Project Manager, Russ Jensen</b>, who we have listed as our Construction Manager for the Cosumnes Bridge Replacement project. The site was a busy stretch of I-5, with construction operations ranging through day and night work, and multiple seasons. Major scope involved replacing existing concrete pavement with PCC pavement, installing a dowel bar retrofit, crack and seat existing concrete pavement and overlay with Hot Mix Asphalt (HMA). This project also involved reconstructing shoulders, widening the median, installing concrete barriers, and HMA overlay of ramps. The first segment of the I-5 Elk Grove project is a four lane divided freeway in a rural area with five bridges, three overcrossings and one undercrossing. The second segment is a six lane divided freeway in an urban area with two bridges, six overcrossings and one separation.</p> <p><b><u>3.5.1 (a) Experience in successfully managing and constructing projects of similar size and complexity.</u></b></p> <p>Granite's Sacramento office has successfully completed hundreds of local Caltrans projects. The I-5 Elk Grove project was a complex District 3 contract, with challenges similar to those our team expects to encounter on the Consumnes Bridge Replacement project, including high traffic volumes, 3<sup>rd</sup> party coordination, night work, temporary traffic detours, removals, structure work, concrete and asphalt pavement, and safety and environmental requirements. The management and construction experience from the I-5 Elk Grove project will directly correlate towards the successful execution of the Cosumnes Bridge Replacement project for traffic management, sensitive environmental landscapes and critical schedule coordination. Additionally, with peak monthly progress billings in excess of \$7M, the I-5 Elk Grove project was of similar magnitude and size as the Cosumnes Bridge Replacement project.</p> <p><b><u>3.5.1(b) Experience in complex multi-bridge replacement project with railroad, environmental, regulatory, local agency, and public stakeholder involvement.</u></b></p> <p>With seven bridges and nine overcrossings, I-5 Elk Grove included complex multi-bridge rehabilitation, involving deck</p>

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and barrier treatments, guard rail, sign structures and approach slabs. This work required detailed phasing plans and traffic coordination to manage removals, steel erection, forming, reinforcing steel, and concrete placement. Included with demolition preparation were lead compliance and abatement plans.

This project also included clearing activities, which required surveys of nesting birds, bats and reptiles. The I-5 corridor spans several water crossings which required special detail to storm water management, threatened and endangered species, and archaeological awareness. Working with local regulatory agencies, best practices were utilized and the project was completed with no unfavorable environmental events.

I-5 Elk Grove also required intense public stakeholder involvement. Pocket Road and Elk Grove Boulevard are both within the project limits. **Russ Jensen, proposed Construction Manager for this project**, and his project team provided Caltrans with scheduled updates to keep all parties informed. Key arrangements were made to accommodate traffic flow during holidays and special events, including public outreach, traffic features, schedule and hours of operation. Granite has decades of experience in Elk Grove and the surrounding area. The Cosumnes Bridge Replacement project will benefit from Granite's experience, expert project staff, and proven best practices.

#### 3.5.1 (c) A record of completing contracts on time and within the fixed price.

The I-5 Elk Grove project's original contract value was \$58.6M. The final contract amount was \$61.3M. The increase in price was related to Caltrans directed scope and quantity increases, which was predominantly oil index and quantity adjustments.

A Value Engineering Change Proposal (VECP) was submitted by Granite shortly after construction began. The VECP offered a revised structural section to the new median construction on the project. The VECP was accepted by Caltrans with a net savings to the contract of approximately \$947,000. The VECP also significantly reduced the number of trucking hours associated with the work, benefiting the traffic flow of the public as well as decreasing the overall carbon emissions of the project.

The base contract was completed on-time and within the fixed price for the original scope. There were no items for which the contract price exceeded Caltrans' maximum value. Granite also presented a VECP to replace AB with lime treatment, for an additional \$1.6M savings.

This project was completed within the allowed number of contract days. The variance between planned and actual completion dates was driven by 167 working days (WD) of unavoidable weather non-working days. Additionally 70 WD were added to the contract for contract change orders (C.C.O). Specifically, the addition of the Segment 3 median drainage forced the project into a second winter suspension. The project team was still able to mitigate delays and complete the project within the revised 350 day contract time.

#### 3.5.1 (d) Managing contracts to minimize delays, claims, dispute proceedings, litigation and arbitration.

As with most large and complex projects, I-5 Elk Grove did have its challenges. Items related to bridge work, concrete paving, asphalt paving and drainage all presented hurdles for the team. Granite and Caltrans were able to work through each issue and complete the project with **zero delays, claims, disputes, litigation, or arbitration**. For example, when the drainage concern surfaced, Granite and Caltrans worked at the project level, to develop a best-value solution together which minimized delays and project expenses, all while mitigating the concern.

#### 3.5.1 (e) The technical and management experience and expertise to plan, organize, and execute the construction of, and assure the quality and safety of the Project.

Along with certified and experienced project staff, Granite also has an in-house quality engineering lab in Sacramento. Granite's fully accredited lab was located within 10 miles of the I-5 Elk Grove project and is about the same distance from the Cosumnes Bridge Replacement project. Our material engineers are a valuable resource and provide project support to ensure quality material design, production and placement. With local technicians, Granite has the unique advantage of a qualified staff and the ability to make process adjustments as dictated by the project. The I-5 Elk Grove project received over \$1M in material quality bonuses. Granite will employ the same local technical

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resources and proven quality systems, to the Cosumnes Bridge Replacement project.

Granite works hard to maintain one of the best safety records in the industry. Both the safety of our people and the public are equally important. The I-5 Elk Grove project was completed with just one minor injury; a traffic control worker twisted his ankle while exiting a traffic control vehicle. This is a very heavily traveled section of I-5 and efficient traffic maintenance was a top priority. Each new task began with a Job Hazard Analysis, along with daily safety meetings, to discuss plans and potential challenges. Using a proactive system of checks and balances, the Elk Grove team identified and mitigated all safety issues on the project. Planning is key. Granite will utilize its accident prevention program and cache of safety best practices to ensure that the Cosumnes Bridge Replacement project is executed safely for all.

#### **3.5.1 (f) The ability to effectively manage all aspects of contracts in a quality, timely and effective manner and integrate the different parts of its organization with the Department in a cohesive & seamless manner.**

The Caltrans and Granite field personnel co-located on-site, strategically placing their jobsite offices within one block of one another. This allowed both teams to communicate easily and immediately addressing issues as they arose. There were no excuses or barriers to communication between Granite and Caltrans. Although a number of Caltrans directed change orders were issued, Granite and Caltrans worked closely together to develop schedule recovery plans. By co-locating, timely solutions were formed for items like traffic control. If a traffic flow issue surfaced, Granite was able to effectively adjust on the fly. Working together as a cohesive unit, Granite and Caltrans were able to execute seamlessly to maintain the project schedule and deliver a quality project on-time.

#### **3.5.1 (g) Innovative solutions to accelerate construction and minimize impacts to the traveling public.**

In Segment 3 of the I-5 Elk Grove project, the team identified a potential drainage issue and implemented a change to address it. A new grated line drain system was installed prior to re-aligning traffic to the median in order to complete the final stage of construction. Once the final traffic shift was completed, the last section of PCCP placement could be performed on the new outer travel lanes. Early intervention provided an opportunity to accelerate construction and minimize impacts to the traveling public.

#### **Additional Required Information:**

- **Implementation of complicated staging and traffic control handling**

I-5 is a critical north/south commercial truck and commuter route. With AADT's of 115,000 vehicles and 13,300 trucks within the corridor, I-5 Elk Grove's traffic volumes are similar to those expected on the Cosumnes Bridge Replacement project. One of the major obstacles set forth by the nature of the scope of work was the perception and inconvenience to the general public. Nightly NB and SB lane closures were set up on one of the busiest stretches of I-5 leaving and entering the city of Sacramento. Incidents involving damage to temporary traffic control devices occurred at all hours of the day or night that required immediate repair. Both Granite and Caltrans were very responsive to accidents and public complaints.

- **Coordination of complex utility relocation as well as construction of municipal utilities**

As one of the nation's largest heavy civil contractors, Granite installs miles of private and municipal utilities each year; including water, sewer and dry utilities. This project required installation of a complex system of several thousand feet of storm sewer. The existing system was maintained and relocated to facilitate new construction.

- **Experience of team members working together as an integrated team**

Granite has been working on Sacramento area highways since 1955. Our **Project Manager, Russ Jensen**, worked closely with Caltrans professionals like Ed Yarborough and Meshack Okpala. Granite values our long-standing relationships with all stakeholders, including the traveling public and the City of Elk Grove. As members of the local community, we have a vested interest in District 3's success with the Cosumnes Bridge Replacement project and District 3. Additionally, Granite has been a contractor for UPRR for decades and would consider them an integral



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part of the team for this project. We are familiar with their systems, processes and staff both in their headquarters in Omaha and their local staff in Roseville, CA.

- **Coordinating work with adjacent contracts**

During the I-5 Elk Grove construction, the team coordinated with another Caltrans contract to the north of the job. Granite worked together with the other contractor in order to coordinate truck traffic, lane shifts, closures and ongoing activities. Granite has local relationships with all of the California contractors and municipalities. These long-standing relationships make coordination between contracts easy for Granite and Caltrans.

- **Environmental regulations/permit requirements**

Granite is not only Caltrans' largest contractor, we are also a construction materials producer. We employ full-time environmental professionals to acquire, maintain and manage environmental permits and regulatory obligations at our sand and gravel operations. Granite owns and manages 10,000 acres of land in the Sacramento Valley region alone. Along with standard BMP's, the I-5 Elk Grove project required a rain event action plan, storm water annual report, and storm water sampling and analysis to comply with the California State Water Board regulations. Granite's business requires a daily focus on environmental regulations and permitting requirements. As a local contractor and material producer, we are very familiar with local requirements and processes. We have contacts with city, county and state regulatory and permitting bodies, as well as with the U.S. Army Corps of Engineers. Granite is very familiar with the 401/404 permit applications and the local water board.

- **Experience in coordination with local and regional agencies on similar sized projects**

The traveling public and the truck traffic experienced on the I-5 Elk Grove project will be similar to that expected on Cosumnes Bridge Replacement project. Lane closure and traffic impacts were coordinated with the City of Elk Grove and County of Sacramento. With monthly billings of over \$7M per month, I-5 Elk Grove was a similar sized project. Granite's local relationships and experience with local agencies will provide a valuable advantage to this contract.

#### **List Any Awards, Citations, and/or Commendations Received for the Project:**

Caltrans Partnering in Motion Award (Gold)  
Excellence in Partnering Award (Silver) for Projects over \$50M

**Name of Client (Owner/Agency, Contractor, etc.):** Caltrans District 3

**Address:** 2366 Maritime Drive Elk Grove, CA 95758

**Contact Name:** Meshack Okpala, Resident Engineer

**Telephone:** (916) 718-8051 **Fax No:** N/A

**Owner's Project or Contract No.:** 03-0F5904

**Contract Value (US\$):** \$58,639,586

**Final Value (US\$):** \$61,372,695

**Reason for Variance:** Owner added scope (See narrative 3.5.1 c)

**Percent of Total Work Performed by Company:** 77%

**Commencement Date:** 6/8/2011

**Planned Completion Date:** 8/17/2012

**Actual Completion. Date:** 08/02/2013

**Amount of Claims:** None

**Any Litigation?** Yes \_\_\_\_ No X

**Claim Summary:** N/A

**DRB History:** All NOPCs were resolved without any DRB hearings.

**Form B**  
**PROJECT DESCRIPTION**

**Name of Proposer:** Granite Construction

Instructions for Form completion: Form B is limited to a maximum of three (3) pages\* for each completed project.  
\*Updated to four (4) pages per Addendum 1 dated June 5, 2018.

<b>Name of Firm:</b> <u>Granite Construction</u>
<b>Project Role:</b> <u>Prime Contractor – Bid-Build Contract</u>
<b>Firm's Office/Division/District which performed the work:</b> <u>Granite Construction Valley Region Sacramento Office</u>
<b>Other (Describe):</b> <u>N/A</u>
<b>Years of Experience (provide length of activity as it relates to the following three elements):</b> <b>Roads/Streets:</b> <u>96</u> <b>Bridges/Structures:</b> <u>96</u> <b>Utility Relocations:</b> <u>96</u>
<b>Project Name, Location, and Nature of Work for Which Company Was Responsible:</b>
<b>Interstate 80 Colfax to Alta Reconstruct – Gold Run III (#03-3E0404)</b>
Colfax, CA
Granite was the prime contractor responsible for the delivery of this build-build A+B contract.
<b>Provide Project Description and Describe Site Conditions:</b>
Interstate 80 Colfax (I-80 Colfax) is a heavily traveled transportation corridor between the Sacramento Valley and Reno, Nevada. Granite self-performed nearly 80% of the project which is similar in size and scope to the Cosumnes Bridge Replacement CM/GC project.
<b>Scope Elements Similar to Cosumnes Bridge Replacement CM/GC Project:</b>
<div style="display: flex; justify-content: space-between;"><div style="width: 48%;"><ul style="list-style-type: none"><li>Removal and replacement of multiple approach slabs</li><li>Removal and replacement of metal beam guard rail</li><li>Shoulder and median reconstruct</li><li>Removal and replacement of slotted drain pipe</li><li>Full-width, full-structural section replacement at each approach</li></ul></div><div style="width: 48%;"><ul style="list-style-type: none"><li>Crack and seat of existing exposed PCC pavements</li><li>Removal and replacement of all median concrete barrier</li><li>New rumble strips</li><li>Adjustment of all inlets within the paving limits</li></ul></div></div>
<b><u>3.5.1 (a) Experience in successfully managing and constructing projects of similar size and complexity.</u></b>
The I-80 Colfax project has a direct correlation to the Cosumnes Bridge Replacement CM/GC project in several elements. First, both are highly traveled routes through the Valley and a viable detour to relieve traffic flows does not exist. Construction had to be conducted alongside heavy traffic volumes. Secondly, both have the same requirement of a complete structural removal and replacement while maintaining these traffic flows. More importantly than the total contract revenue is the monthly burn rate of the contract. Granite successfully managed this project to be completed in 132 working days, or five construction months with an average revenue burn rate of nearly \$5M per month.
<b><u>3.5.1(b) Experience in complex multi-bridge replacement project with railroad, environmental, regulatory, local agency, and public stakeholder involvement.</u></b>
The I-80 Colfax scope and complexity is similar to the Cosumnes Bridge Replacement CM/GC project. This project

## Form B

### PROJECT DESCRIPTION

was constructed in different stages, with each stage including traffic detours and ramp closures requiring the development of a Traffic Management Plan (TMP) and innovative traffic handling. Our experience demonstrates Granite's ability to perform complete roadway removal and replacement through live traffic and minimizing the general public impacts.

Granite's contract services included extensive traffic handling, demolition and removal of old pavements, bridge deck overlays, re-paving of HMA pavement, drainage improvements, barrier rail construction, and overhead sign construction. The Granite team self-performed over 80% of the work and managed over one dozen key specialty subcontractors to maintain the accelerated project schedule. Granite also performed quality control for pavement quality during construction.

Granite successfully reduced the number of traffic stages which allowed for an accelerated project schedule. Roadway work was scheduled, planned and executed to maximize the paving of full-width travel lanes and minimize and consolidate the number of traffic control days causing impacts to the general public. The Granite team worked with Caltrans to create work areas that allowed for effective paving operations. This same approach can be used on the Cosumnes Bridge Replacement CM/GC project. Granite's paving experts will coordinate with traffic planners and traffic handling designers to maximize productivity and reduce project cost and schedule. The I-80 Colfax project was completed ahead of schedule.

One of Granite's core competencies is the safe and effective handling of traffic. On the I-80 Colfax, the project team accommodated nearly 100,000 vehicles per day through the work area during construction periods. Traffic control and staging was a large element of the work. In two stages, construction crews split traffic to create work zones in-between travel lanes, construct new pavement, and then shifted traffic back to its original configuration. Coordination of entrance and exit ramp closures were also required to perform the work, as were extended traffic detours. Granite has extensive experience handling traffic on I-80 through the narrow mountain corridor and will bring this experience to the Cosumnes Bridge Replacement CM/GC project. Additionally, UPRR mainline tracks crossed through the project corridor which required coordination.

#### 3.5.1 (c) A record of completing contracts on time and within the fixed price.

The I-80 Colfax project was a cost + time format contract. Granite's winning bid of 119 working days was significantly less than the two seasons expected by Caltrans. Contract time was ultimately extended by 32 days for CCO scope and final completion was achieved in 132 days, 18 days ahead of schedule. Our **Project Manager, George Delano**, developed the construction schedule for this project and will take his scheduling ability to the Hwy 99 Cosumnes Bridge Replacement CM/GC Project.

#### 3.5.1 (d) Managing contracts to minimize delays, claims, dispute proceedings, litigation and arbitration.

The I-80 Colfax project was completed ahead of schedule, with no claims, litigation or safety issues. The project incurred \$832K of bid item quantity adjustments, primarily in a 6% over-run in the HMA item. Total change orders added a net \$1.52M in contract value for owner initiated changes. This project was completed without claims, DRB hearings, litigation or arbitration. The Caltrans/Granite team worked together to resolve all issues at the lowest level.

#### 3.5.1 (e) The technical and management experience and expertise to plan, organize, and execute the construction of, and assure the quality and safety of the Project.

Safety was a priority and key factor in the success of this project. A site-specific training program was developed



## Form B

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which addressed the dangers associated with the project. Topics addressed included lighting, high speed public traffic, crowded work zones and the numerous project related vehicles traveling through the job. Everyone working on the project was required to attend the site-specific training before they were allowed on-site. Strict speed limits for crew vehicles and haul trucks were enforced in the work zones. Well-thought-out plans, both MOT and Work Performance, were successfully executed by the project staff and crew led to zero-time lost injuries and zero incidents in 71,303 (Granite) man hours worked on the project. The Granite team plans to bring this same experience and ability to the Cosumnes Bridge Replacement CM/GC project ensuring project success.

#### **3.5.1 (f) The ability to effectively manage all aspects of contracts in a quality, timely and effective manner and integrate the different parts of its organization with the Department in a cohesive and seamless manner.**

The I-80 contract demonstrated an excellent partnering process with Caltrans. The team achieved superior communication which ultimately allowed joint and timely scheduling and the discussion of potential impacts. Our team used the Value Engineering (VE) process to manage the project and achieve superior quality control and safety performance. Granite and Caltrans, met weekly to review and ultimately decide direction on all the critical issues of the project which included all VE innovations and restaging of the project to save time and lessen the impacts to traffic.

#### **3.5.1 (g) Innovative solutions to accelerate construction and minimize impacts to the traveling public.**

Several value engineering proposals helped expedite the schedule and allowed cost savings for both Granite and Caltrans. A change order credit was approved to use plastic slotted drain pipe instead of corrugated steel slotted drain pipe. The material savings was split between the State and Granite and ultimately improved the overall installation cost. Another change order credit was approved for switching from 3/8" HMA on the bottom lift to all 3/4" HMA for the project. This lift was increased from 0.1' to 0.15' which allowed for compaction core testing and improved structural properties.

Another VE proposal that increased safety for the public traffic was not removing the existing stripe on the existing pavement and temporary striping over the existing. Instead, the removal of the stripe was eliminated with a cost saving split and temporary striping was placed on the middle lift of AC. This lift was striped to move traffic over to build the concrete barrier wall. The public traffic was shifted into new lanes. The visibility of the temporary striping on the new AC mat was far superior to what the visibility would have been over the existing cracked PCC and new AC paved shoulders.

#### **Additional Required Information:**

##### **- Implementation of complicated staging and traffic control handling**

I-80 Colfax had a narrow right of way and the traveling public was always close to the construction operations. Through use of temporary K-Railing and glare screens we were able to protect the construction personnel and not distract the traveling public. COZEEP was continually present and coordinated with site management on a daily basis to ensure safety for all. A detour was allowed through the Hwy 20 corridor which Granite crews implemented as needed and maintained communication and signage for the entire detour length.

##### **- Coordination of complex utility relocation as well as construction of municipal utilities**

I-80 Colfax included the installation of a new slotted drain parallel to the new median which ultimately connected to the existing drainage system. The installation area was narrow and the drain grate was installed to a designed final grade. Granite proposed a VE proposal that Caltrans accepted netting a \$53,000 saving.

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**- Experience of team members working together as an integrated team**

The Granite and Caltrans teams met regularly during all phases of the project to facilitate a collaborative team atmosphere. **Communication was open and efficient among all team members to accelerate the construction schedule, keep the facility operating well and avoid costly time impacts.** The team's ability to work collaboratively and productively together through construction issues was an integral component of the partnering process and was a contributing factor to the project's timely completion and overall success.

**- Coordinating work with adjacent contracts**

Substantial project coordination was required for the entire I-80 corridor as it is a busy transportation route through the Sierra Nevada Mountains. Granite carefully coordinated with the Caltrans Resident Engineer and Caltrans Public Information Officer (PIO) to avoid major impacts to the traveling public and other construction projects. Granite's proactive public information process, alongside Caltrans PIO, helped to coordinate needs with these other projects and events, including Reno's "Hot-August Nights" event coordinator to minimize delays. Granite worked daily with Caltrans and COZEEP to ensure the public travelled through a fully integrated corridor on I-80. This same thoughtful communication and planning is essential to the Cosumnes Bridge Replacement CM/GC project.

**- Environmental regulations/permit requirements**

The I-80 Colfax project traversed sensitive waterways and protected lands which required both Caltrans and Granite to strictly monitor and comply with the Placer County Air Board. Granite worked closely with Caltrans and the permitting agencies to procure necessary air and use permits to allow for on-site recycling of the removed materials. This allowed both Granite and Caltrans to benefit from the VE process while staying in compliance with all permits and restrictions. Granite was also responsible for all SWPPP measures, rain event testing and annual reporting to the State Water Board.

**- Experience in coordination with local and regional agencies on similar sized projects**

The I-80 Colfax project is a perfect example of the coordination that will be necessary for the Cosumnes Bridge Replacement CM/GC project. Sensitive waterways, high traffic volumes and no viable detour all parallel the Cosumnes Bridge Replacement CM/GC project and demonstrate Granite's ability to schedule and execute sensitive public projects while communicating to the 3<sup>rd</sup> party stakeholders. I-80 Colfax successfully coordinated with the Town of Colfax, Nevada City and Placer County throughout the project performance.

**List Any Awards, Citations, and/or Commendations Received for the Project:**

NAPA Quality in Construction Award for Asphalt Pavements  
Partnering in Motion Award

**Name of Client (Owner/Agency, Contractor, etc.):** Caltrans District 3

**Address:** 703 B Street, Marysville, CA

**Contact Name:** Troy Scheiber, RE

**Telephone:** (209) 948-3966 **Fax No:** (209) 948-3960

**Email:** Troy.Scheiber@dot.ca.gov

**Owner's Project or Contract No.:** 03-3E0404

**Contract Value (US\$):** \$44,030,029

**Final Value (US\$):** \$46,493,629

**Reason for Variance:** Owner added scope (See narrative 3.5.1 d)

**Percent of Total Work Performed by Company:** 80%

**Commencement Date:** 04/2009 **Planned Completion Date:** 12/2009 **Actual Completion Date:** 132 WD, 11/2009

**Amount of Claims:** 0

**Any Litigation?** Yes \_\_\_\_ No X

**Claim Summary:** N/A

**DRB History:** N/A

**Form B**  
**PROJECT DESCRIPTION**

**Name of Proposer:** Granite Construction

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Instructions for Form completion: Form B is limited to a maximum of three (3) pages\* for each completed project.  
\*Updated to four (4) pages per Addendum 1 dated June 5, 2018.

<b>Name of Firm:</b> <u>Granite/Pulice Joint-Venture (JV)</u>
<b>Project Role:</b> <u>Designer/General Contractor</u>
<b>Firm's Office/Division/District which performed the work:</b> <u>Granite Construction Large Projects West</u>
<b>Other (Describe):</b> <u>N/A</u>
<b>Years of Experience (provide length of activity as it relates to the following three elements):</b> <b>Roads/Streets:</b> <u>96</u> <b>Bridges/Structures:</b> <u>96</u> <b>Utility Relocations:</b> <u>96</u>
<b>Project Name, Location, and Nature of Work for Which Company Was Responsible:</b>
<b>SR 202L HOV Lanes Design-Build</b>
Phoenix, Arizona
State highway and interstate widening, multi-bridge replacement.
<b>Provide Project Description and Describe Site Conditions:</b>
<p>The Arizona Department of Transportation (ADOT) SR 202L High Occupancy Vehicle (HOV) project provided design and construction of 20 miles of new HOV lanes on the SR 202L, between the SR 202L/Interstate 10 (I-10) Traffic Interchange (TI) and Gilbert Road, in Chandler, AZ. The JV team of Granite and Phoenix-based, Pulice Construction, integrated phased design solutions and construction techniques that addressed ADOT's principal challenge of maintaining traffic flow during construction. The project required an accelerated delivery schedule and the design and construction had to be completed within 390 days of the Notice to Proceed (NTP). Once completed, the 20 miles of new HOV access lanes improved traffic flow, reduced freeway congestion and vehicle emissions, encouraged carpooling, and enhanced Phoenix's regional transportation system. The project covered a heavily traveled section of both I-10 and SR 202L in Phoenix, requiring detailed traffic mobility management. Major work elements included multi-bridge replacements with I-10 and SR 202L fly-overs, major utilities, concrete and asphalt paving, median barrier, and signage. This project demonstrates similar scope to the Cosumnes Bridge Replacement project with complex multi-bridge replacements self-performed by the JV. Project Principle, <b>Mike Tatusko</b>, was Granite's Project Executive on SR 202L and proposed Preconstruction Services Manager, <b>James Waller</b>, was the Design Coordinator on SR 202L. Major scope included:</p> <ul style="list-style-type: none"><li>• Design and construction of a new 5-span AASHTO girder bridge, providing a fly-over connection between I-10 and SR 202L</li><li>• Design and construction of a new 17-span AASHTO girder bridge, providing a fly-over connection between SR 101L and SR 202L</li><li>• Design and construction of a two-span curved cast-in-place post tensioned box girder bridge</li><li>• Design and rehabilitation of existing cast-in-place post tensioned box girder bridge</li><li>• Widening of the existing Price Road service bridge at the SR 101L/SR 202L TI</li><li>• Concrete and asphalt pavement</li><li>• Utility coordination and installation, including work interfacing with the Santan Canal waterway.</li></ul>



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#### 3.5.1 (a) Experience in successfully managing and constructing projects of similar size and complexity

The SR 202L was chosen as a Form B project because it is of similar size and complexity as the Cosumnes Bridge Replacement Project. At \$88M, it was of similar size and scope and built in just over 14 months. Regarding complexity, the job dealt with many difficult elements, including design constraints, accelerated work packages, complex multi-bridge replacements, and major traffic mobility challenges with I-10, SR 202L and SR 101L, as well as safety, quality, environmental, and public relations, with multiple towns and stakeholders. The project management team engaged during the bidding process and carried on throughout design and construction phases. This early intervention and planning paid dividends throughout the project, by identifying conflicts and challenges early on in the design process.

#### 3.5.1(b) Experience in complex multi-bridge replacement project with railroad, environmental, regulatory, local agency, and public stakeholder involvement.

The SR 202L is a multi-bridge replacement job, the structures were massive, involving intricate falsework and forming systems, multiple bridge types, and multiple crews on multiple headings. As a design-build project, environmental, regulatory and public stakeholder involvement were designed into the job. The JV/ADOT team coordinated together weekly and had a dedicated Public Information Officer (PIO). As part of preconstruction work, Granite's Design Coordinator, **James Waller**, was instrumental in re-configuring the 17-span SR 101L/SR 202L bridge to accommodate adequate clearance between the transmission lines, avoiding costly right-of-way acquisition costs and potential utility relocation delays. The contract included strict regulatory requirements to address endangered species and air quality regulations.

#### 3.5.1 (c) A record of completing contracts on time and within the fixed price.

Not unlike the Granite/Caltrans Fresno SR 99 CM/GC, SR 202L had hard deadline requirements. Design and construction teams worked together to accelerate design packages, which gave us the ability to begin construction, while design was on-going. For example, we were able to begin detours, utility relocations, removals and initial earthwork prior to requiring a final bridge deck design. This accelerated approach allowed the project to meet each milestone and finish ahead of schedule. Additionally, working together with ADOT, the design team, led by **James Waller**, was able to reduce the original fixed price by \$18M. This allowed ADOT to add several additional features to the project, while remaining within \$4M of the original fixed price amount.

#### 3.5.1 (d) Managing contracts to minimize delays, claims, dispute proceedings, litigation and arbitration.

The SR 202L team co-located on-site with ADOT and the design staff. This created a strong bond, a high level of trust, and allowed for team buy-in when decisions were made. This partnering atmosphere lasted throughout the construction process, and enabled decisions to be made efficiently at the lowest level on the project. Partnerships built on trust and communication like the one developed on the SR 202L job do not have delays, claims, disputes, litigation, or arbitration and SR 202L exemplified these benefits. This was also an A+B contract that was managed to achieve a final administrative close-out within 30 days after substantial completion.

#### 3.5.1 (e) The technical and management experience and expertise to plan, organize, and execute the construction of, and assure the quality and safety of the Project.

We assembled our key technical and management staff on-board early and carried them through to the build phases of the project. Our plans captured all aspects of the project, including phasing, constructability, utility coordination, maintenance of traffic, safety, and quality. For example, our schedule incorporated cast-in-place concrete cure time,

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falsework erection, safety systems, and special events related to traffic. The design team was led by **James Waller**, while the estimating and operations were managed by **Mike Tatusko**. James and Mike have a long history of working together to bring the owner the best possible value.

#### 3.5.1 (f) The ability to effectively manage all aspects of contracts in a quality, timely and effective manner and integrate the different parts of its organization with the Department in a cohesive and seamless manner.

As an A + B contract, the project had a very tight schedule requiring the job to be designed and constructed in just 15 months. To accomplish this, the SR 202L team co-located on-site, in a single office facility, which made for a very effective management environment. The JV team worked effectively with designers and DOT personnel as a collective unit, focusing on rolling out the project's final design in a coordinated fashion such that initial elements of work (utilities, substructures, etc.) were completed first. This allowed the work to begin earlier in the process without sacrificing safety or quality. The ADOT and JV field staff also co-located and interacted daily on the project and in the job office. Communication was so frequent, that weekly meetings were streamlined, as we became a seamless and cohesive team with the Department working together daily. All this allowed the project to reach its goals to be delivered on schedule and built to the highest quality.

#### 3.5.1 (g) Innovative solutions to accelerate construction and minimize impacts to the traveling public

Led by **James Waller**, the SR 202L design team developed numerous innovations to accelerate construction and minimize traffic impacts. This was a top priority for ADOT and a focal point on each element of the project. One example was designing in permanent metal decking (PMD) into the AASHTO girder bridges. This sped up construction immensely, by reducing forming and stripping time. A second innovation was the incorporation of straddle bents at the I-10/SR 202L TI, which did not interrupt traffic flow. Others included using a modular spread footing design on the bridge bents, and a faux end treatment on the bridge piers to match the existing architectural features of the existing piers. This innovation reduced weight, allowed the spread footings to be smaller, saved time and money, and still provided the desired quality and aesthetics. All of this saved time to ultimately accelerate the schedule and minimize impacts to the traveling public.

#### Additional Required Information:

- Implementation of complicated staging and traffic control handling

SR 202L was located in one of the most highly congested segments in the Phoenix area, and, ADOT had rigid lane restrictions to prevent backing SR 202L traffic up onto I-10. Through careful communication, innovation, coordination, nighttime and off hour activities, and partnering with ADOT traffic professionals, the project operations team was able to schedule operations to relieve congestion and maintain efficient traffic flows throughout the active corridor.

- Coordination of complex utility relocation as well as construction of municipal utilities

There was a major high pressure nitrogen line that ran through the project which required relocation for the ultimate build-out. Through coordination efforts with ADOT and Apache Nitrogen, we proposed a full width jack and bore, across five lanes in each direction, plus the median to prevent traffic impacts. Another major municipal utility coordination involved existing transmission lines. The original design concept required relocation of the existing transmission lines, which was a real estate right-of-way challenge. **James Waller** proposed an alternate design concept which re-configured the 17-span bridge to accommodate adequate clearance between the transmission lines. The JV worked with all stakeholders to agree to this solution allowing construction pace to continue without delay.

- Experience of team members working together as an integrated team

The SR 202L project team was a cohesive unit. We integrated daily, weekly and monthly with team coordination

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meetings at all levels of the project. We maintained the same key personnel on the project both through the design and construction phases to allow for continuity throughout the project. This staff stability built team momentum and allowed the team to leverage trust earned early on the project, to overcome design and construction challenges and make efficient decisions later in the job. Major subcontractors and suppliers were also brought into the fold and attended team coordination meetings.

- **Coordinating work with adjacent contracts**

The SR 202L project was in the heart of metropolitan Phoenix and coordination with adjacent contracts was a daily event. Trucking was one major challenge and required careful coordination with adjacent contracts, so our trucks did not get held up in someone else's traffic control, and our lane closures did not compound congestion issues caused by work by others elsewhere in the corridor.

- **Environmental regulations/permit requirements**

The SR 202L had a host of environmental regulatory and permit requirements. Some of these requirements addressed burrowing owls and lesser long nosed bats. Phoenix is in Maricopa County, which is a non-attainment area for air quality. The County placed an air monitoring device on the job. Any air quality violations would have resulted in fines; the project received zero violations or fines.

- **Experience in coordination with local and regional agencies on similar sized projects**

The SR 202L project was in the heart of metropolitan Phoenix and required multiple agency coordination. One local agency, the City of Chandler, was especially vocal about the project. They wanted a communication forum and agreement to prevent potential impacts to their scheduled events. This included accommodating the City's annual ostrich race! Phoenix is also home to universities, tourism, sporting, and racing venues. We had regular coordination efforts with each venue to ensure accommodation of their events were not negatively impacted by construction activities.

#### **List Any Awards, Citations, and/or Commendations Received for the Project:**

Marvin M. Black Partnering Award Special Recognition (Sam Hassoun was a host at the event)  
Engineering News Record (ENR) Magazine's Top Project Starts

**Name of Client (Owner/Agency, Contractor, etc.):** Arizona Department of Transportation

**Address:** 1739 West Jackson Street, Suite A, Phoenix, Arizona 85007

**Contact Name:** James Windsor, P.E.

**Telephone:** (602) 768-4546

**Email:** jwindsor@azdot.gov

**Owner's Project or Contract No.:** H745701C

**Contract Value (US\$):** \$84,688,947

**Final Value (US\$):** \$88,709,423

**Reason for Variance:** Department directed scope and quantity adjustments.

**Percent of Total Work Performed by Company:** 72%

**Commencement Date:** 08/2010

**Planned Completion Date:** 10/2011

**Actual Completion Date:** 10/2011

**Amount of Claims:** \$0

**Any Litigation?** Yes \_\_\_\_ No X

**Claim Summary:** None

**DRB History:** None



# COSUMNES BRIDGE REPLACEMENT



## SECTION FIVE PROPOSER KEY PERSONNEL

SECTION FIVE:  
PROPOSER KEY PERSONNEL



- ▶ **Project Manager,  
George Delano, P.E.**  
Lives in: Newcastle, CA  
Home office: Sacramento
- ▶ **Construction Manager,  
Russ Jensen**  
Lives in: El Dorado Hills, CA  
Home office: Sacramento
- ▶ **Lead Estimator,  
Scott Hennessy**  
Lives in: Loomis, CA  
Home office: Sacramento
- ▶ **Environmental/Permit Manager,  
Jordan Main**  
Lives in: Sacramento, CA  
Home office: Sacramento
- ▶ **Principal Paleontologist,  
Sarah Rieboldt Ph.D**  
Lives in: Buena Park, CA  
Home office: Irvine
- ▶ **Paleontological Monitor,  
Tara Redinger**  
Lives in: San Pablo, CA  
Home office: Richmond
- ▶ **Preconstruction Manager,  
James Waller**  
Lives in: Aptos, CA  
Home office: Watsonville, CA
- ▶ **Senior Project Engineer  
Miki Hont, P.E.**  
Lives in: Roseville, CA  
Home office: Sacramento

## LOCAL TEAM INTRODUCTION

Granite has intentionally assembled a team of proven CM/GC professionals with past success of delivering District 3 Caltrans projects of similar size, complexity, challenges and goals as the Cosumnes Bridge Replacement CM/GC project. Our local team includes:

### ▶ **Project Manager – George Delano, P.E.**

George will be fully dedicated from preconstruction services through construction closeout. George will ensure that the project has the appropriate resources including personnel and equipment, which will guarantee the timely completion of all aspects of the CM/GC process. George brings years of experience in bridge repair and construction and has been involved on some of the industry's high-profile projects including Santa Monica Freeway earthquake repair and locally, the Lake Natoma Crossing in Folsom, CA.

### ▶ **Construction Manager – Russ Jensen**

Russ will be involved throughout the entire CM/GC process. Russ will ensure that the project is constructed in accordance with the design and project requirements, and that all safety and quality standards are met. Russ has worked throughout the state and has significant experience in both bridge structures and roadway improvements including utilities, earthwork and subcontract management.

### ▶ **Lead Estimator – Scott Hennessy**

Scott is responsible in preparing the Opinion of Probable Cost at each design interval. Scott will be 100% dedicated to the preconstruction effort and will work with Caltrans and the Independent Cost Estimator (ICE) in a collaborative and transparent manner. Scott is an experienced estimator capable of pricing both roadway and structure improvements. He brings a balanced resume of both estimating and managing projects and is well suited to the Cosumnes Bridge Replacement Project.

### ▶ **Environmental/Permit Manager – Jordan Main, Compass Land Group**

Jordan will assist the Caltrans team to obtain all necessary permits in a timely manner. Jordan will continue his involvement throughout the construction process and ensure that the project is constructed in accordance with all permit conditions.

### ▶ **Principal Paleontologist – Sarah Rieboldt, Ph.D, LSA**

Sarah is responsible for preparing all necessary reporting including draft and final Paleontologist Mitigation plans, in accordance with Caltrans Standard Environmental Reference (SER). Sarah will also guide the Paleontological Monitor to ensure compliance with all project requirements.



## A. RESUMES

As requested, resumes for Key Personnel are located within Appendix A.

## B. FORM D

Form D is included in this section.

## C. REQUIRED LICENSES

Granite Construction Company is proud to hold contractor license #89 in the state of California.



### Cosumnes Bridge Replacement Project Key Personnel

Our key personnel are supported by an experienced local team, including regional construction manager, chief estimator and field superintendents, to assist in constructability and OPCC efforts. These individuals all supported the Hwy 99 Fresno CM/GC process.

### ► Paleontologist Monitor – Tara Redinger, LSA

Tara will be on-site at all required times to monitor, collect samples as necessary and mitigate damage to sensitive finds. Tara will receive direction from the Principal Paleontologist, Sarah Riebodlt, Ph.D.

### ADDITIONAL KEY PERSONNEL SELECTED

The individuals designated for the following additional key positions were specifically chosen for the Cosumnes project based on their significant and relevant experience in complex, urban transportation development, design and construction. Their talents will further advance our efforts during preconstruction and will transition, as appropriate, to ensure the efficient delivery of the project.

### ► Preconstruction Services Manager – James Waller

James will be fully involved throughout the preconstruction phase and will provide guidance and direction to the team. James will lead the efforts utilizing Granite's time-tested CM processes and will facilitate the Construction Manager role along with Project Manager, George Delano, P.E.

### ► Senior Project Engineer – Miki Hont, P.E.

Miki will act as the Senior Project Engineer for the project from preconstruction through construction. Miki will be responsible for the project CPM schedule including updates, stakeholder communications and will report to the Construction Manager, Russ Jensen. Miki recently managed the Clinton Avenue bridge replacement on the Hwy 99 Fresno CM/GC project. He managed all aspects of this milestone improvement and completed the work within the original 6-month commitment.

Granite's Project Manager, George Delano, P.E.; Lead Estimator, Scott Hennessy; Senior Project Engineer, Miki Hont, P.E.; and Preconstruction Manager, James Waller, all served in like roles during the execution of Caltrans' first CM/GC project under their pilot program. Their efforts on the successful SR 99 Fresno CM/GC have demonstrated their abilities and commitment to partnering with Caltrans and delivering the best value for the project.

Russ Jensen brings current experience with Caltrans projects and was responsible for ensuring the improvements were completed in accordance with the Caltrans specifications. Russ recently completed the Phase 1 Hwy 99 Atwater Expressway and the I-5 Elk Grove to Florin pavement rehabilitation projects. These projects were completed on-time, within budget, and with superior safety performance. These recent projects demonstrate Russ's ability to construct the Cosumnes Bridge Replacement project successfully while collaborating with Caltrans.



This team's first-hand experience completing the Caltrans construction manager phase of the SR 99 Fresno project will allow for accelerated completion of the plans and agreement of the costs for this project. Granite's pledge to have the Project Manager, Construction Manager, and Senior Project Manager 100% committed to the life of this project will ensure a seamless transition to the General Contractor portion of the contract, and completion of the work, all while meeting the Department's project goals.

Our Environmental/Permit Manager, Jordan Main, has worked with Granite since 2003, securing timely permit approvals for our projects and facilities in the Sacramento area. He understands highly sensitive environmental permit restrictions and its relationship to budget and schedule. He is one of few professionals in his trade that has the balance of understanding the

construction process and schedule demands of high-profile projects.

Finally, our Paleontologist team of Sarah Rieboldt and Tara Redinger have lengthy resumes of successful projects for Caltrans throughout the State. They offer the ability to perform all the work in-house, without consultants and understand the difference between the academic versus practical side of their science. They understand the importance of protecting sensitive lands while maintaining project progress. Both Sarah and Tara have worked on construction sites and are aware of the process and schedule demands.

Our team will work collaboratively with Caltrans to complete this project on-time and within the fixed price. We will assure the best quality & a safe work environment, while minimizing impacts to the traveling public.

**FIGURE 5.0: AUTHORITY AND RESPONSIBILITIES MATRIX**

AUTHORITY AND RESPONSIBILITY	George Delano, P.E. Project Manager	Russ Jensen Construction Manager	Scott Hennessey, Lead Estimator	Jordan Main Environmental/Permit Mgr.	Sarah Rieboldt, Ph.D. Principal Paleontologist	Tara Redinger Paleontological Monitor	James Waller Preconstruction Manager	Milki Hont, P.E. Sr. Project Engineer
Stop Work	✓	✓	✓	✓	✓	✓	✓	✓
Mobilize and Direct Crews	✓	✓		✓				✓
Contract Negotiations & Change Orders	✓							
Enter into Subcontract Agreements	✓	✓						
OPCC Creation	✓		✓					
Share Cost Info with Caltrans	✓		✓				✓	
Assist with Obtaining Permits	✓			✓				
Create and Maintain CPM Schedule	✓	✓	✓					✓
Coordinate with Local Stakeholders	✓	✓		✓			✓	✓
Help Identify Innovative Solutions	✓	✓	✓	✓	✓		✓	✓
Ensure Project Construction Meets Permit Requirements	✓	✓		✓				✓
Prepare Paleontological Identification Report and Evaluation Reports					✓			
Responsible for Paleontological Monitoring & Mitigation					✓	✓		

**FIGURE 5.1: GRANITE'S PROPOSED TEAM CONNECTIVITY FOR COSUMNES CM/GC PROJECT**

TEAM CONNECTIVITY	Final Contract Value	George Delano, P.E. Project Manager	Russ Jensen Construction Manager	Scott Hennessy Lead Estimator	Jordan Main Environmental/Permit Mgr.	James Waller Preconstruction Manager	Mike Hunt, P.E. Sr. Project Engineer
SR 99 Fresno CM/GC - EWS	\$28.3M	✓		✓	*	✓	✓
Hwy 20 "Pet Hill" Curve Realignment	\$35.4M	✓			*		
I-5 Sacramento Pavement Rehabilitation	\$61.3M	✓	✓	✓	✓		
I-80 Colfax to Alta	\$46.5M	✓					
SR 202L HOV Lanes Design Build	\$88.7M				*	✓	
SR 99 Fresno CMGC - Main Package (Active Contract)	\$130M	✓		✓	✓	✓	✓
Folsom Dam Ph 3 Gate Structure	\$250M	✓		✓	✓		
I-80 Truckee River Canyon	\$45.9M	✓					
Lost Creek Dam Retrofit (Active Contract)	\$18M	✓		✓	*	✓	
<b>Years of Experience with Granite</b>	<b>175</b>	<b>38</b>	<b>32</b>	<b>36</b>	<b>18</b>	<b>31</b>	<b>20</b>

\* Services not required on project.

Note: Paleontological services were not required on any of these projects.

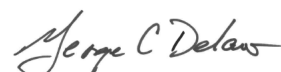




## OUR TEAM'S COMMITMENT TO MEETING YOUR PROJECT GOALS



“ I believe very strongly in the CM/GC process, especially in the way that working together with transparency, fairness, integrity and trust builds truly exceptional teams that can do great things. I personally commit to leading the Granite effort to build that team with Caltrans, and will give my full energy, effort, and experience to make the Cosumnes Bridge Replacement project successful in all respects, for all stakeholders.



**George Delano, P.E.**  
Project Manager



“ I am committed to planning safety into every aspect of our work and I will work relentlessly to execute that plan. The safety of our employees, partners and the traveling public is our responsibility and top priority. I will be diligent in the pursuit and delivery of the highest quality for this project and I will ensure top-notch customer service. I will foster the continued creative thinking, within our team, and consider all potential innovations and opportunities for the final product.



**Russ Jensen**  
Construction Manager



“ I will provide detailed cost opinions and transparency to the project through the entire process. I will collaboratively review alternative means and methods and make decisions jointly with Caltrans that are in the best interest of the Project.



**Scott Hennessy**  
Lead Estimator



“ I will work collaboratively with Granite and Caltrans' environmental staff to identify opportunities to reduce permitting time, avoid or minimize environmental impacts, reduce permitting fees and mitigations, and maximize flexibility for construction activities. I will ensure that the project is constructed in accordance with the requirements of the environmental permits and plans. I will proactively identify environmental risks and innovative ideas to assist in meeting the project's environmental goals.



**Jordan Main**  
Environmental/Permit Manager



“ My overarching goal for this project is to strike the best balance possible between the needs of the project stakeholders and the need to preserve any paleontological resources from the project. This means being judicious with time, budget, and staff allocation through all phases of project development from assessment through monitoring, to the final report. In particular, I intend to safely recover any fossils encountered on the project with minimal, if any, delay to the project schedule. Regarding the resources themselves, my objective is to ensure that sufficient contextual information is recovered and that the fossils are prepared, identified, and described to the degree that will be most useful for future scientific study, as well as public education and outreach.



**Sarah Rieboldt, Ph.D.**  
Principal Paleontologist



“ My personal goal as the field paleontologist for this project is to gain as much knowledge about the natural history of the region as possible. By conducting safe and thorough paleontological monitoring during construction activities, I hope to be able to gain new information about the plants and animals that once lived here and the environment in which they lived. Hopefully, the knowledge and any specimens found here will increase community interest and pride in the natural history of this region.



**Tara Redinger**  
Paleontological Monitor



“ I will work diligently in the preconstruction phase to support the Caltrans goals for the project. I will foster a team atmosphere that encourages a “best for project” decision making process. I personally commit to creating an environment that facilitates project delivery, reduces risk, and maximizes innovation without ever compromising quality or safety.



**James Waller**  
Preconstruction Manager



“ “I will work collaboratively with stakeholders and will efficiently manage resources to ensure that work is completed on schedule and within the allotted budget. Through excellent communication, flexibility, and effective problem solving, I will strive to make the Cosumnes Bridge Replacement project an award winning success.”



**Miki Hont, P.E.**  
Senior Project Engineer



### TIME COMMITMENTS

Figure 5.2 below depicts our time commitment by key individual for the preconstruction and construction services phases.

**FIGURE 5.2: TIME COMMITMENTS BY KEY PERSONNEL**

Team Member	Preconstruction Phase	% Involvement	Transitions to Construction	% Involvement
<b>George Delano, P.E.</b> Project Manager	Lead team building/partnering, value analysis/engineering, constructability reviews, stakeholder coordination and schedule reviews.	100%	Lead team management and coordination, cost control/management, field management, safety/QC programs.	100%
<b>Russ Jensen</b> Construction Manager	Management plans, value analysis/engineering, constructability reviews, schedule reviews.	100%	Daily field management, subcontractor management, critical path scheduling, safety/QC programs.	100%
<b>Scott Hennessy</b> Lead Estimator	Value analysis/engineering, estimating/price/GMP, bid package strategy, DBE participation, cost model/budget.	100%	Cost control/management, safety/QC programs.	25%
<b>Jordan Main</b> Environmental/ Permit Manager	Leverage relationships and assist team in procuring necessary permits in timely manner. Ensure that any permit restrictions do not cause added risk or costs to project budgets.	50%	Ensure that the project is constructed in conformance with the permit commitments. Perform audits and reporting to comply with agency needs.	50%
<b>Sarah Rieboldt, Ph.D</b> Principal Paleontologist	Prepare all necessary construction plans to avoid sensitive areas and prepare reports per the Caltrans Standard Environmental References.	50%	Perform necessary audits with both Palaeontologist Monitor and Caltrans to ensure permit compliance.	10%
<b>Tara Redinger</b> Paleontological Monitor	Provide plan review comments to Palaeontologist submittals.	10%	Train project staff to avoid disturbance of sensitive areas and perform all monitoring and mitigation needs during construction.	50%
<b>James Waller</b> Preconstruction Manager	Provide preconstruction leadership to promote full collaboration of design and construction teams. Help identify innovative solutions to project challenges to reduce project risks.	100%	Ensure that partnering and project innovations continue throughout construction phase. Keep team focused on project goals throughout construction.	20%
<b>Miki Hont, P.E.</b> Senior Project Engineer	Develop project sequencing and CPM schedule. Meet and coordinate with stakeholders. Verify access and obtain necessary staging area to facilitate construction.	100%	Finalize and maintain project CPM schedule. Maintain communication with stakeholders. Look for continuous improvement on sequencing and schedule.	100%

- Granite fully understands that Caltrans has the final decision on actual hours of the key personnel on the project. 100% commitment means that this person is 100% available to meet Caltrans' schedule for meetings and providing deliverables.
- The preconstruction effort is expected to change from week to week depending on the project needs and Caltrans' schedule.
- The Cosumnes project will be the primary responsibility for the key personnel. Work on other projects will be performed as time allows.

# GOSUMNES BRIDGE REPLACEMENT



## SECTION FIVE

Form D: Proposer Key Personnel Information

Name of Proposer **Granite Construction**

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Instructions for Form completion: Responses shall be addressed within the table below. If additional space be needed to adequately respond, Proposer is advised to increase the number of lines within the table as appropriate. Form D has no SOQ page limitation. [Note to Drafter: Edit positions for Project, refer to Section 3.6.1]

Position	Name	Years of Experience	Education and Registrations	Parent Firm Name
Project Manager	George Delano, P.E.	38	BS, Civil Engineering, University of Vermont, 1980 Professional Engineer, CA #36342	Granite Construction
Construction Manager	Russ Jensen	32	Bachelor of Science in Construction Management, Cum Laude – Central Washington University, 1988 Associate in Arts and Science in Liberal Arts – Big Bend College, 1985	Granite Construction
Lead Estimator	Scott Hennessy	36	BS, Construction Management, California State University, Chico 1982	Granite Construction
Environmental/ Permit Manager	Jordan Main	18	BS, Environmental Toxicology, University of California, Davis, 2001 – with honors	Compass Land Group
Principal Paleontologist	Sarah Rieboldt, Ph.D	16	University of California, Berkeley, Ph.D., Paleontology, 2005 University of Colorado, Boulder, Magna cum Laude B.A., Biology, Minor in Geology, 1999	LSA
Paleontological Monitor	Tara Redinger	4	California State University, Fullerton, California, B.A., Earth Sciences, 2014. Mount San Antonio College, Walnut, California, A.A., Natural Science, 2010.	LSA
Preconstruction Manager	James Waller	31	BS in Accounting, American University, 1992 BS in Chemistry, Minnesota State University, 1991	Granite Construction
Senior Project Engineer	Miki Hont, P.E.	20	MBA, Finance, Cal Poly San Luis Obispo, 2002 BS, Civil Engineering, Cal Poly San Luis Obispo, 1999 Professional Engineer, AZ No. 43721	Granite Construction



# COSUMES BRIDGE REPLACEMENT



SECTION SIX:  
PROJECT UNDERSTANDING  
& APPROACH

SECTION SIX  
PROJECT UNDERSTANDING  
& APPROACH



## Partnership with Local Stakeholders



Granite's local team has contacted all of the third party stakeholders and landowners surrounding the Cosumnes Project, including Oneto Farms, SMUD, Comcast/Frontier, Cosumnes CSD Emergency Services, UPRR, City of Elk Grove and County of Sacramento; this will enable our team to hit the ground running during preconstruction stakeholder meetings.

## The Granite Advantage

"We are confident that Granite has worked around the UPRR long enough to know what our concerns will be, once you win the job we look forward to furthering discussions."

—KEVIN HICKS  
VP of Engineering and Construction  
UPRR, OMAHA HQ



## SECTION 6: PROJECT UNDERSTANDING

The Cosumnes project limits are conveniently located 12 miles south of Granite's Valley Region office and materials facilities in Sacramento, which will enable our local team to immediately deploy resources and equipment as needed throughout the project's duration. Located on a critical stretch of SR 99 between the communities of Elk Grove and Galt, the project scope will modify the highway which acts as one of the only major commuter, freight, and local traffic links across the Cosumnes River.

Due to changes in scope and a desire to begin delivery of the project in fiscal year 2019/2020, Caltrans has decided to use the CM/GC process to expedite the project. Granite supports Caltrans for choosing the CM/GC delivery method for this project. Early contractor involvement during the design phase will significantly reduce project risk, cost and delivery time.

### A. UNDERSTANDING OF PROJECT SCOPE

**Caltrans Experience** - Annually, Granite has anywhere from 50-100 active Caltrans projects and is proud to be one of Caltrans' largest contractors (by volume) in California.

#### Granite's Caltrans District 3 & Local Experience:

Granite has been constructing road and highway projects for District 3,

and producing construction materials in the Sacramento Valley for well over 60 years. Granite's Valley Region has offices in Sacramento, Stockton and Fresno, and construction materials production facilities both located just minutes from the project's site. The project's site is well understood by our local teams, in part by the recent work success executed along the corridor as well as by the team's daily and routine use of the corridor as members of the local traveling public. We drive this corridor every day; it is home to our team and field staff.

#### Project's Local & Regional Significance:

As local members of the Sacramento area community, we understand the importance of early communication and establishing relationships with all of the affected stakeholders on the project. The team has contacted all of the stakeholders identified at left, and understands the nuances and needs of each. We have secured staging locations for the projects. This will enable our team to hit the ground running during preconstruction stakeholder meetings.

#### The Project Goals:

We will utilize the Project Goals as a baseline for measuring success with the project. **We are committed to minimizing mobility impacts to the traveling public, freight transportation, and commuters. We will also reduce adverse impacts**

to local landowners and emergency services, while ensuring environmental compliance and responsible stewardship of the sensitive wildlife habitats, excellence in sustainable construction, SB and DBE participation, and delivering the project well ahead of the published delivery date of November 2024.

**Major Construction Elements:**

The Cosumnes Project major construction elements include concrete structures, cast-in-place slab, precast girder and steel girder, JPCP and HMA pavements, traffic handling, earthwork, drainage, and median barrier railing. Granite builds these elements on a regular basis across the state. Granite has the means and skill to perform the vast majority of the project's scope, but with our "Construction Manager first" approach to pricing, we will get competitive subcontractor quotes to make sure Caltrans gets the best value.

These elements contain constraints which could directly affect the project's schedule and are detailed in Figure 6.2 on the following page.

**Staged Bridge Construction over Cosumnes River and Overflow Channel:**

An effective design and work plan for these project elements will be critical to the project schedule. Our team, led by Project Manager George Delano, PE, will present Accelerated Bridge Construction options and analyze methods to reduce or eliminate the use of falsework structures within seasonally wetted regions to expand work windows and shrink the project schedule.

Granite has experience collaborating with the local USACE Sacramento District, as well as the Central Valley Regional Water Quality Control Board and California Department of Fish and Wildlife, regarding fill-in-water work at our local mining sites, and this experience will be applied to reach a timely

and equitable agreement on permit conditions for work within the ordinary high water mark. Timely coordination with these local agencies will be critical to expedite this process so that it does not impact the project's critical path.

**McConnell Bridge & UPRR Impacts:**

Determining the best design alternatives for this work should be an early priority of pre-construction so that long lead time agreements with UPRR do not impact the critical path.

Granite's team has recent experience interacting with UPRR on similar scopes of work such as the SR 99 Realignment CM/GC Project in Fresno. To avoid schedule impacts, coordination with UPRR must begin early and remain constant throughout both preconstruction and the build phase. This will include negotiation on terms of access agreements, early submission of required design and work plan documentation, and coordination of rail road flaggers and track outage needs.

**Maintenance of Traffic:**

Reducing impacts to North-South mobility is a key goal on the project, and to the traveling public. Granite routinely balances the need to maintain traffic flows with innovative solutions to minimizing phasing and disruptions. Phasing plans and traffic control plans must be designed to accommodate local traffic but also provide safe and efficient progression of the work.

**Right of Way & Construction Easement Acquisition:**

This is a critical operation to begin clearing, utility relocations, and other first order work. During preconstruction services, Granite will provide guidance on construction access needs and cost-to-cure estimates. Of particular need will be determining access for construction of the McConnell overhead structure.



IDENTIFICATION OF PROJECT ELEMENTS & EFFECT ON PROJECT SCHEDULE

Proactively managing the construction elements that have the most significant impact on the schedule will provide the best value to Caltrans, the traveling public, local stakeholders, and ensure a successful project delivery.

FIGURE 6.1: COSUMNES SCOPE ELEMENTS



- Cosumnes River and Overflow Bridges
- McConnell Overcrossing
- McConnell UC Row Relinquish
- Roadway Work
- Dillard Road OC Improvements



FIGURE 6.2: MAJOR SCOPE ELEMENTS IDENTIFIED, CONSTRAINT, SCHEDULE IMPACT & MITIGATION MEASURES

Feature	Constraint	Potential Schedule Impact	Mitigation Measures to be Considered During Construction
Element 1: Cosumnes River and Overflow Bridges			
Alternative Bridge Types	Design Criteria	Explore use of Precast Concrete Girders and other Accelerated Bridge Construction Elements to expedite the construction schedule.	Consider alternative bridge types and substructure construction to best satisfy design criteria and meet environmental considerations.
Falsework	Wet Season/weather	Shorter work windows for falsework could extend bridge work into additional seasons.	Evaluate methods to reduce or eliminate the use of falsework to avoid wet season work constraints.
Bridge Depth	Bridge Soffit must remain 3' above 100-year flood plain	Raising roadway elevation will increase roadway quantities and increase required work duration.	Look to minimizing bridge depth to avoid raising finished elevation and impacting adjacent roadway alignments.
Environmental considerations for bridge design	Environmental restrictions to design	Time to acquire environmental permits and the terms of these permits as they relate to construction work windows will affect schedule.	Closely coordinate with USACE and other environmental agencies to create design and work plans to best compliment environmental restrictions to mitigate schedule and cost impacts.
Element 2: McConnell Overcrossing			
Existing NB Bridge Structure	Design Alternative	Removal or replacement of existing structure and staging of work will affect schedule.	Analyze and determine best value between the two alternatives for existing NB Bridge. Cost and benefits of removal and replacement.
UPRR Coordination	Work Windows and Design Criteria	Onerous UPRR requirements could directly impact schedule.	Coordinate with UPRR to determine expectations, design and work considerations and incorporate into schedule.
UPRR Submittal Process	Limited submittal reviewers at UPRR HQ	Lengthy review process and any time needed to revise submittals to address comments could adversely affect schedule.	Early submittals of design and work plans to allow for lengthy UPRR review schedules. Experienced team will produce submittals that can hold up to scrutiny and limit review time.
UPRR Flagger & Track Closure Reqs	Working adjacent to UPRR Tracks. Limited Flagger Resources	Failure to manage flagging resources and track work windows could delay critical RR adjacent activities.	Use experience and coordination to manage RR flagger costs, schedule, and impacts due to track outage windows.
Bridge Girder Erection	Work Access	Limitation to access for bridge girder erection will require detailed crane pick plans and lengthy reviews by UPRR.	Evaluate need for temporary crane access for new bridge girder erection.
Early Work for Abutment Fills & Freight Mobility Milestones	Agreement with UPRR	Beginning work at new McConnell Bridge as an early work activity will benefit overall schedule.	Early work to build abutment fills and reach freight mobility milestones earlier in the project.
Design Alternatives for Spans 1 & 3	Design Criteria & UPRR Requirements	Construction of one span bridge versus three span bridge will significantly shorten schedule.	Evaluate innovations to shorten or eliminate spans 1 & 3.
Element 3: McConnell UC ROW Relenquish			
UPRR Access Agreement	Negotiation of Terms with UPRR	Lengthy negotiations on access agreements can become critical path activities.	Immediate coordination to allow time for required agreements including Right-of-Entry Agreement and Construction and Maintenance Agreement to start work.
UPRR Submittal Process	Limited submittal reviewers at UPRR HQ	Lengthy review process and any time needed to revise submittals to address comments could adversely affect schedule.	Early submittals of design and work plans to allow for lengthy UPRR review schedules. Experienced team will produce submittals that can hold up to scrutiny and limit review time.
Criteria for Final Status	Agreement with UPRR	Added scope of final requirements could add to project schedule.	Determine through coordination whether a simple relinquish of ROW is acceptable or whether removal of the bridge is required.
Freight Mobility Constraints	Current height restriction limits freight mobility within the corridor	Determine when to shift traffic during project schedule.	Evaluate project phases to expedite SB traffic to OC and improve freight mobility earlier in project.





**FIGURE 6.2: MAJOR SCOPE ELEMENTS, CONTINUED**

Feature	Constraint	Potential Schedule Impact	Mitigation Measures
<b>Element 4: Roadway Work</b>			
<b>Concrete Paving</b>	Concrete Access/ Staging & Concrete Cure Time	Maximizing work access to create open paving areas for higher production machine paving work will shorten paving schedule. Lengthy cure times can impact timing of traffic switches and add to overall schedule duration.	Consider a portable batch plant to ensure quality and timely delivery of mix. Create a paving plan early and coordinate with traffic staging. Work to incorporate full paving lanes. Consider "high early" concrete to allow early use of completed JPCP lanes.
<b>Roadway Embankment</b>	Limited availability of permitted borrow sites	Limitations to access to borrow could impact productions and delay the schedule.	Granite has already secured a local source for potential borrow material.
<b>Traffic Staging</b>	MOT and access to work areas	Where possible maximize work access to create open work areas to increase productivity and accelerate schedule.	Early coordination with traffic control staging. Keep safety of both the traveling public and the workforce at the forefront.
<b>Existing Utilities</b>	Conflicts between existing utilities and new work	Work adjacent to utilities could be delayed due to Utility Reqs such as Kinder Morgan Reqs.	Locate and ensure protection of existing Kinder Morgan petroleum pipeline and Comcast fiber optic line. Use 3D modeling to identify conflicts. Pothole as needed during preconstruction.
<b>Element 5: Dillard Road OC Improvements</b>			
<b>Bridge Overlay</b>	Design Criteria	Resource demand at Dillard could limit work at other project locations, causing schedule impacts.	Consider early work package to complete work and receive mobility benefits prior to major alignment work.
<b>Traffic Impacts</b>	MOT and access to work areas	Traffic staging at Dillard could limit work at other project locations, causing schedule impacts.	Evaluate design and work plans to mitigate impacts to highway traffic.

## B. APPROACH TO CM/GC CONTRACTING

Granite's past experience successfully delivering CM/GC contracts for Caltrans and other clients has resulted in a toolbox of proven systems and processes that will ensure the best value for the project. The figure at right describes our CM/GC methodology and management approach for transportation projects, and the specific value we bring to Caltrans to ensure successful execution of the Project goals.

### Approach as Sole Major Participant:

Granite is a national and local leader in transportation construction, including CM/GC delivery, as well as a local transportation expert in Northern California. Our experience shows that having additional JV partners or dedicated subcontractors/consultants for a project such as Cosumnes may create constraints and misalignment amongst the CM/GC team that will inhibit the freedom to explore and optimize solutions during preconstruction. As the sole Major Participant we offer the flexibility to consider multiple construction elements and select specialty subcontractors based on their best value to Caltrans.

**PROPOSED METHODOLOGY FOR AN INTEGRATED TEAM WITH THE DEPARTMENT** - The preconstruction Team, led by Project Manager George Delano, P.E. and Preconstruction Manager James

Submitted June 12, 2018

Waller, will bring the same proven expertise and momentum from the Caltrans Fresno 99 CM/GC project to Cosumnes. As noted by Caltrans Construction Engineer, Mike Weber, **"Organizational lines have truly become blurred [on Fresno 99 CM/GC] a team trait often noted by the various third parties and stakeholders."**

### The Granite Advantage

"Beginning with the preconstruction services phase of the Fresno 99 CM/GC project, **Granite made it clear that they were willing to go above and beyond to bring forth quality value engineering concepts, perform effective constructibility reviews and to provide transparent cost estimates and construction schedules.** Your participation in the development phase of the project **gave credibility to the department when negotiating & coordinating with the numerous third parties involved in the project.** As a result of ...

**...the Granite team's professionalism, openness and commitment to work in the best interest of the project; a strong partnership and trust was forged early in the CM/GC process."**

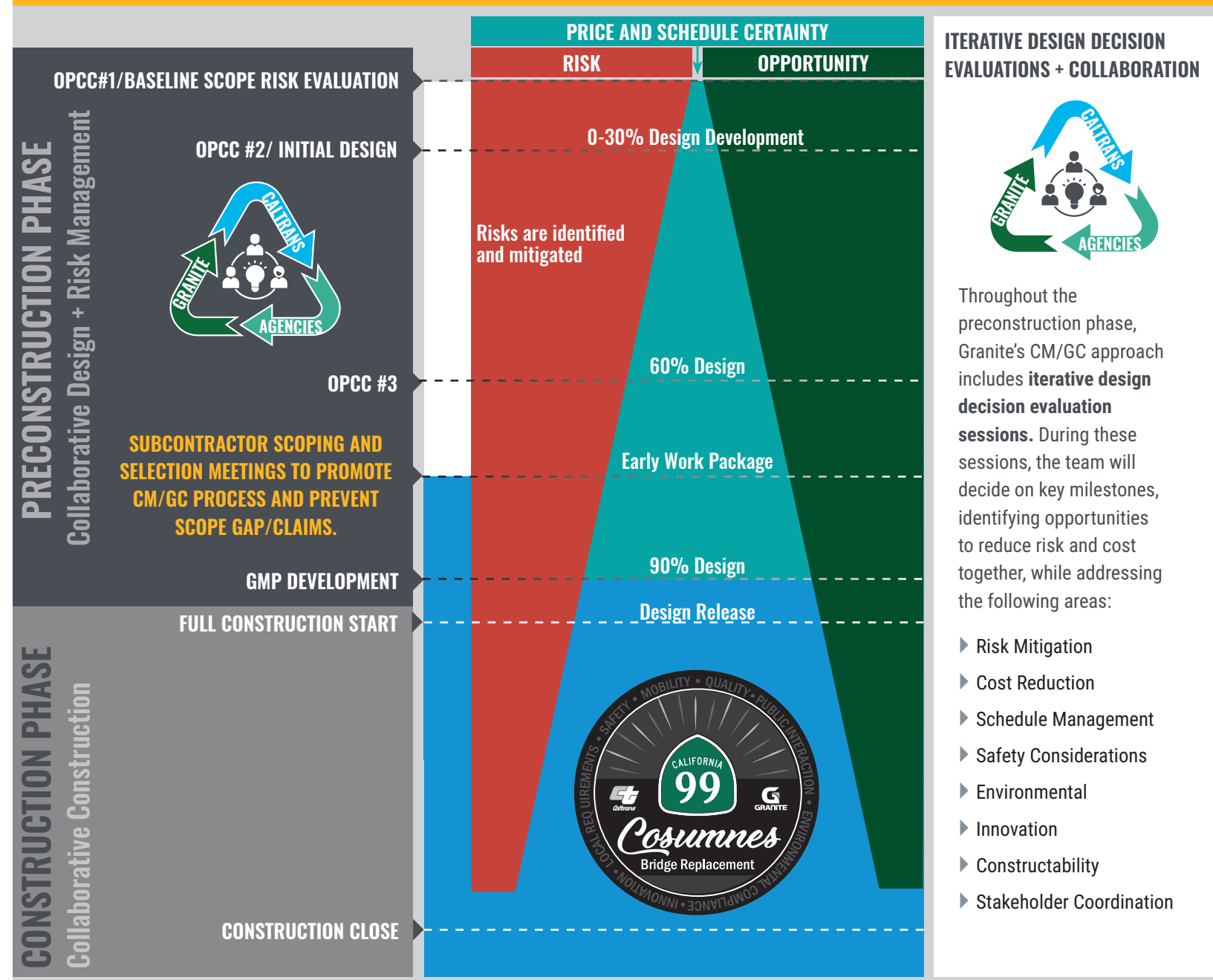
Sincerely,



MICHAEL J. WEBER, PE  
Construction Engineer

We are one team. To ensure an integrated team from Day 1, we will hold weekly coordination meetings with all stakeholders including Caltrans, Granite, UPRR, Sacramento County, City of Elk Grove, subcontractors, and major suppliers. As depicted at right, we will leverage iterative design decision evaluation sessions throughout preconstruction to make key decisions as a team. Similar to the Fresno 99 CM/GC, Granite will colocate with Caltrans, and provide Caltrans with laptop(s) with Granite's HCSS estimating software to validate the estimate alongside our project team. **During preconstruction on the Caltrans Fresno 99 CM/GC, George and James successfully partnered with Mike Weber and Caltrans to lead the effective communication and coordination between the owner, Granite, subcontractors, and third parties.** PlanGrid software ensured real time distribution of the latest plans and RFI information. Co-location and weekly coordination meetings with the owner maintained constant flow of information. Weekly formal coordination meetings with major subcontractors ensured timely submittals, work plans, schedule coordination, and change management. Weekly coordination meetings with third party utilities and with UPRR/CHSRA helped mitigate delays in work coordination and submittal/work plan reviews. Major subcontractors have designated Granite engineers for work coordination and to act as

FIGURE 6.3: GRANITE'S FIELD-PROVEN CM/GC PROCESS™



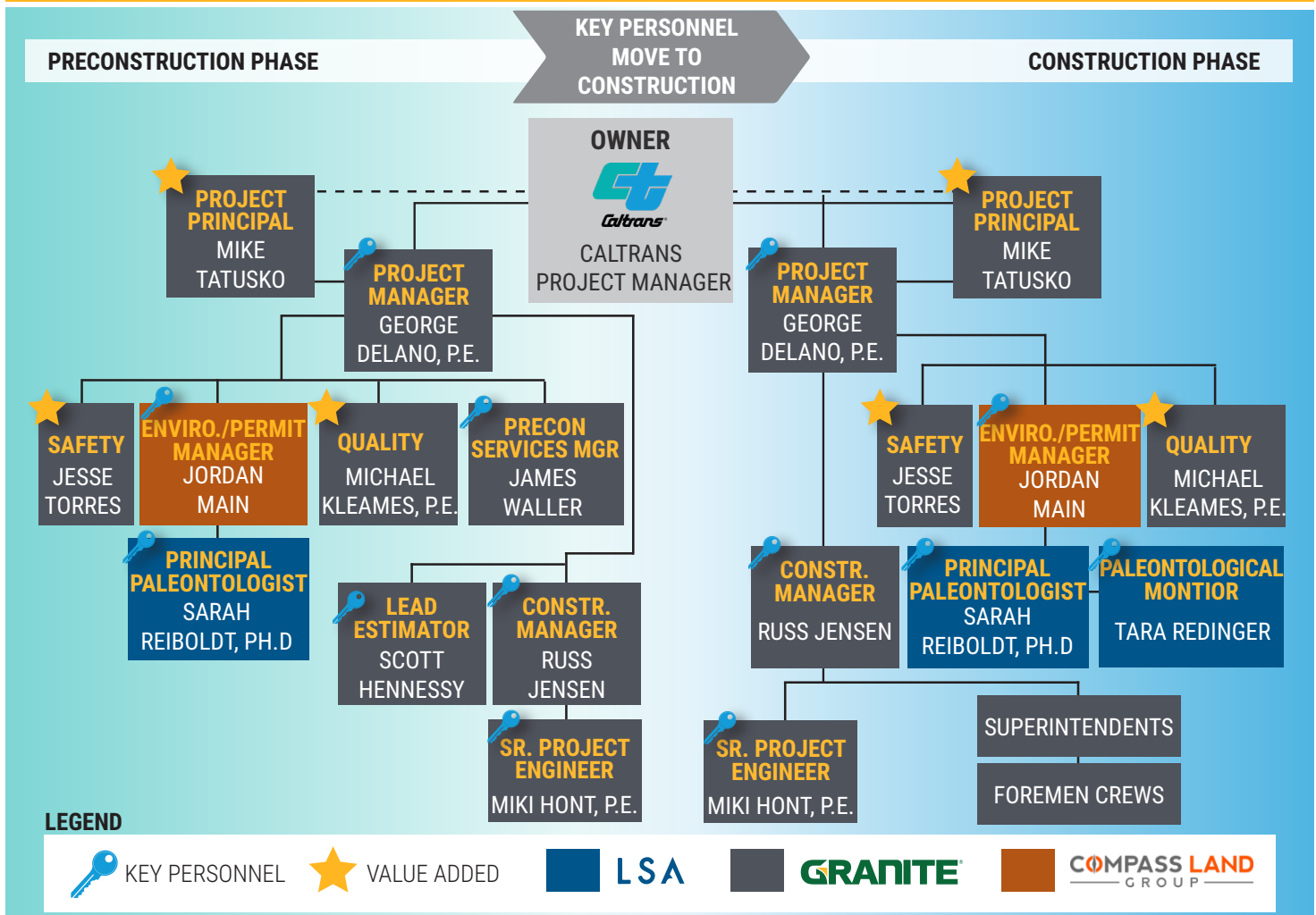
advocates and troubleshooters with the owner.

**CM/GC ORGANIZATIONAL STRUCTURE** - Granite's overall approach to CM/GC contracting is to provide experienced "CM Consulting" services during preconstruction and tested "GC Delivery" services during construction. **This approach is best executed by assigning a team of CM/GC construction professionals for the preconstruction phase and then transitioning that same team to lead the construction contract.**

As depicted on the next page in Figure 6.4, we have identified proposed key personnel, value-added personnel, and identified dedicated subconsultants Sarah Rieboldt and Tara Redinger; Principal Paleontologist and Paleontological Monitor from LSA. We have identified Jordan Main from Compass Land Group to provide environmental services for the Cosumnes Project. Additional information on their qualifications, as well as the rest of the Key Personnel, is located within Appendix A: Resumes.



FIGURE 6.4: PROPOSED TEAM ORGANIZATIONAL CHART



#### TEAM MEMBER, ROLE

##### PROJECT MANAGER, GEORGE DELANO, P.E.:

Main Point of Communication. Responsible for team performance and meeting project goals.

##### CONSTRUCTION MANAGER, RUSS JENSEN:

Present at jobsite at all times. Ensures project is built to plans and specs.

##### LEAD ESTIMATOR, SCOTT HENNESSY:

Develop OPCC's at each milestone. Create and share open cost model estimate with ICE and CT.

##### ENVIRO./PERMIT MANAGER, JORDAN MAIN:

Ensure project is constructed in accordance with all permits and commitments.

##### PRINCIPAL PALEONTOLOGIST, SARA REIBOLDT, PH.D:

Prepare Paleontological Identification Report and Evaluation Reports as necessary.

##### PALEONTOLOGICAL MONITOR, TARA REDINGER:

Responsible for paleontological monitoring and mitigation.

##### PRECONSTRUCTION MANAGER, JAMES WALLER:

Coordinate team during preconstruction. Identify innovative solutions and manage project risk.

##### SENIOR PROJECT ENGINEER, MIKI HONT, P.E.:

Develop CPM schedule. Communicate with stakeholders.

#### CALTRANS TEAM PARTNER

Project Manager, Project Designer, Senior Resident Engineer

Civil Design Manager, Chief Construction Manager

Caltrans Cost Estimate, Independent Cost Estimator

Senior Environmental Planner

Caltrans Archaeologist/ Paleontologist





Caltrans Archaeologist/ Paleontologist

Project Designer, Structures Design Manager, Risk Manager

Senior Caltrans Inspector






## C. APPROACH TO MEETING THE PROJECT GOALS

**FIGURE 6.5: GRANITE'S COMMITMENT TO MEETING CALTRANS' PROJECT GOALS FOR COSUMNES**

Caltrans' Project Goal	Granite Leaders	Granite Approach to Meeting Goals & Project Delivery Schedule
<b>SAFETY</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Jesse Torres</b> Safety Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize safety planning and communication.</li> <li>• <b>Incorporate safety into design</b> during constructability and risk/innovation workshops.</li> <li>• Obtain/use <b>incident reports during construction for measuring effectiveness of traffic handling plan implementation</b> – adjust as needed.</li> <li>• Establish <b>zero tolerance</b> expectations during employee/subcontractor orientation and training.</li> <li>• Develop <b>site specific job hazard analyses</b>.</li> <li>• George, Russ, Jesse and the entire team will conduct daily worksite inspections/corrections.</li> <li>• George, Russ, Jesse and the entire team will conduct daily, weekly, monthly safety meetings.</li> <li>• <b>George will lead from the top establishing a strong safety focused culture. Granite's team will make sure safety will be a primary consideration for every design and construction decision.</b></li> </ul>
<b>MOBILITY</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Miki Hont, P.E.</b> Senior Project Engineer</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify and mitigate Mobility impacts in Staging and Phasing Plans.</b></li> <li>• Incorporate <b>Mobility in daily work plans.</b></li> <li>• Communicate and <b>seek feedback from public transport, EMS, adjacent businesses and homes</b> prior to changing traffic/access patterns.</li> <li>• Inspect and <b>adjust staging/phasing on a daily basis</b> as needed to accommodate traffic flow.</li> <li>• <b>Apply Granite's Standard Crisis Management Plan</b> and customize where needed for addressing emergencies.</li> <li>• <b>Russ' experience maintaining high volumes of traffic on the I-5 Florin Project will be a great asset during construction of this project.</b></li> </ul>
<b>QUALITY</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Michael Kleames, P.E.</b> Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Address <b>quality and inspection activities during constructability workshops.</b></li> <li>• Set <b>expectations and team goals</b> for inspection, reporting and making corrections per the Quality Plan.</li> <li>• <b>Include Quality in daily meetings</b> and work plans.</li> <li>• Add <b>Quality expectations to all subcontracts</b> and orientations.</li> <li>• <b>George brings to the team a history of building projects that do not compromise on quality. Similar to his work on the Fresno 99 CM/GC and EWP project, George will evaluate decisions with quality in mind both from a materials standpoint as well as bringing an understanding on how design criteria can affect workmanship in the field.</b></li> </ul>
<b>PUBLIC INTERACTION</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Miki Hont, P.E.</b> Senior Project Engineer</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Jordan Main</b> Environmental &amp; Permit Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Address public interests during constructability, MOT and Risk workshops.</li> <li>• Prioritize consistent and timely communications with project neighbors.</li> <li>• Seek feedback from stakeholder groups affected by construction operations.</li> <li>• <b>Miki has experience working as both a contractor and DOT representative on high profile highway projects. He has already created meaningful relationships with local property owners and stakeholders which will be of great benefit to the project.</b></li> </ul>

### C. APPROACH TO MEETING THE PROJECT GOALS, *continued*

**FIGURE 6.5: GRANITE'S COMMITMENT TO MEETING CALTRANS' PROJECT GOALS FOR COSUMNES**

Caltrans' Project Goal	Granite Leaders	Granite Approach to Meeting Goals & Project Delivery Schedule
<b>ENVIRONMENTAL COMPLIANCE</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Jordan Main</b> Environmental &amp; Permit Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Address environmental issues and risks during constructability and Risk/Innovations workshops.</li> <li>• Establish clear responsibilities for monitoring and reporting environmental compliance, both self-perform and sub operations.</li> <li>• Ensure that ESAs, water quality, SWPPP and T&amp;E species are addressed in all work plans.</li> <li>• <b>Jordan's familiarity with local environmental agencies and first-hand experience on transportation projects will help him provide needed guidance during preconstruction and ensure proper actions are taken during construction.</b></li> </ul>
<b>PROJECT DELIVERY</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>James Waller</b> Preconstruction Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Optimize the schedule ties between design and construction to meet a October 2022 completion date (<i>acknowledging that this is 2 years ahead of Caltrans' stated goal</i>).</li> <li>• Prioritize accelerated construction methods that lower schedule-risk during all task-force work.</li> <li>• "Rolling Early Start": Identify Early Work Packages that will hasten mobilization and early Critical Path work.</li> <li>• <b>George brings a history of managing projects that deliver ahead of schedule by constantly driving for improvement and maintaining communication between all stakeholders.</b></li> </ul>
<b>INNOVATION</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Miki Hont, P.E.</b> Senior Project Engineer</li> <li>• <b>James Waller</b> Preconstruction Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize partnering process to kick-off constructability and risk mitigation task-forces. Create a safe team environment that allows creativity and innovation.</li> <li>• <b>James brings 10 years of experience on CM/GC and CMAR projects, using creative thinking and established methods such as DART &amp; 6-sigma to create value added solutions.</b></li> <li>• <b>The SR 99 CM/GC innovations saved the project \$35M in construction costs and reduced the schedule by 14 months.</b></li> </ul>
<b>LOCAL REQUIREMENTS</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Miki Hont, P.E.</b> Senior Project Engineer</li> </ul>	<ul style="list-style-type: none"> <li>• Assist Caltrans in developing a comprehensive list and disciplined approach for meeting local requirements.</li> <li>• Add Local Requirements to work plans and employee/subcontractor orientations.</li> <li>• <b>The project team will leverage Granite's local presence and experience with local agencies to benefit the project.</b></li> </ul>
<b>RAILROAD REQUIREMENTS</b> 	<ul style="list-style-type: none"> <li>• <b>George Delano, P.E.</b> Project Manager</li> <li>• <b>Russ Jensen</b> Construction Manager</li> <li>• <b>Miki Hont, P.E.</b> Senior Project Engineer</li> </ul>	<ul style="list-style-type: none"> <li>• Engage UPRR early in the preconstruction process and shepherd critical RR submittals so they do not impact project delivery.</li> <li>• Develop site specific Railroad Work Plans for all work impacting or adjacent to the railroad.</li> <li>• Add UPRR requirements to employee/subcontractor orientations.</li> <li>• Leverage Granite's in-house rail market manager's strong relationships with UPRR's home office in Omaha.</li> <li>• <b>George's experience interacting with UPRR on SR 99 Fresno will be a vital asset to building a strong relationship with UPRR on this project.</b></li> </ul>



## D. IDENTIFICATION, UNDERSTANDING, AND POTENTIAL SOLUTIONS TO TOP RISKS

Design and Construction risks exist on all projects. We are confident that with the combined talent and experience of the Caltrans/Granite team, the Cosumnes Project will be successful and achieve each of the project goals. The team will be proactive in identifying risk and creating the plans to mitigate or minimize them. Figure 6.6 on the following page highlights the top risks in regards to construction, design, right-of-way, environmental, and stakeholders. In addition, the figure addresses mitigation measures and project constraints that the Caltrans/Granite team will rigorously explore to achieve an early and successful project completion. We have identified the top critical risks and solutions below.

### TOP CRITICAL RISKS & SOLUTIONS

**Cosumnes River flooding causes scour damage that closes the bridges:** Failure of the existing bridges before the replacements are completed would cause severe impacts to traffic mobility, project schedule, project cost, and the wetlands environment. The Cosumnes River is not controlled, and the best risk mitigation is to expedite project delivery and build the new bridges as soon as possible. The critical path to project delivery runs through design, permit acquisitions, third party approvals, and multi-stage/multi-year construction through wetlands work exclusion periods - which all have schedule risks associated with them. Granite will work with Caltrans to minimize those risks (see below). Contingency plans will be developed to mitigate potential flood damage, including monitoring the foundations during high flows, emergency scour repair plans, and rapid temporary bridge response plans.

**Schedule risk due to USACE permitting:** Acquisition of the USACE 404 permit could delay the project if the proper steps are taken early on to expedite the permit, and Granite's experienced permitting staff is eager to help make that happen. The prior USACE jurisdictional determination from 2014 remains valid for a period of five years and could be used in support of a permit application for the revised project. We could also attempt to strategically position the project to qualify for coverage under a streamlined Nationwide Permit (e.g., NWP 14, Linear Transportation Projects). If eligible, a Nationwide Permit would hold a considerable time, cost & complexity advantage to an individual USACE permit.

### Schedule risk from UPRR Agreements and approvals:

Gaining the cooperation of UPRR to expedite agreements and approvals of the design and work plans is critical. Early collaboration & partnering with UPRR will be the key to verifying their expectations and agreeing on timelines for approvals. Granite's experience and relationship with UPRR both locally & in Omaha will help streamline the process and clear the track for timely approvals.

### Schedule risk reduction with innovative planning:

Granite will work with Caltrans to develop alternate design concepts that reduce the number of working days, including the extensive use of precast bridge elements and restaging the project to allow the Cosumnes Bridges to be replaced in a single stage.

### Traffic flow restrictions from temporary alignments or accidents could cause massive traffic backups:

Maintenance of traffic and minimizing disruption is a top priority on this project. Collaborative development of the traffic staging plans and the use of alternative construct methods (see above) can substantially reduce the number of days traffic is impacted. Accident prevention and monitoring will be critical - use of a fully monitored remote queue warning system has been successful in reducing rear end collisions and avoiding subsequent traffic backups on Granite's SR 99 Fresno CM/GC project. Contingency alternate route notification at Elk Grove Blvd (SB) and Twin Cities Road (NB) could be in place to redirect traffic to I-5 when needed.

**Budget risk:** Preliminary budgets can be inadequate due to escalated cost from project delays, incorrect preliminary assumptions, or project specific issues not reflected in historical cost information. A master project schedule including project development/design & construction will help establish priorities and keep the project team on track for timely completion to avoid cost escalations. Granite has noted that the deck area in the project cost estimate for the McConnell overhead appears to be substantially understated, resulting in a \$10M-\$15M shortfall. Validation of the project budget & schedule with a quantity check and production based estimate will be an early priority, establishing a baseline for innovation and improvement. Granite has identified a single span alternative for the McConnell overhead that would be close to the project cost estimate.

D. IDENTIFICATION, UNDERSTANDING, AND POTENTIAL SOLUTIONS TO TOP RISKS, *continued*

## LEGEND



VERY HIGH



HIGH



MEDIUM








LOW

FIGURE 6.6: TOP RISKS IDENTIFIED FOR COSUMNES AND SOLUTIONS

	Risk Identified	Potential Solutions	Project Constraints	Risk Level
CONSTRUCTION	<b>COSUMNES RIVER FLOODING CAUSING SCOUR DAMAGE:</b> Failure of existing bridges could close SR 99 causing severe impacts to traffic mobility, project schedule, wetlands environment and project cost.	Expedite project delivery to construct replacement bridges as early as possible. Implement single stage innovation and install temporary bridges as early work GMP contract. Alternatively, have an emergency temporary bridge designed and available. 	The Cosumnes River is subject to uncontrolled high flows, the existing bridges are scour critical & no easily accessible alternate routes exist.	
	<b>SUBCONTRACTOR &amp; CRAFT LABOR AVAILABILITY:</b> Risk of workforce & sub-contractor resource shortage due to the growing construction volume (including Specialty & DBE Subcontractors) leading to higher cost or schedule delays. 	Granite has 1,200 permanent local craft workers, long standing relationships with local Labor Unions, and can import craft labor from our other regions as needed. Identify peak labor needs in advance using a resource loaded CPM schedule. Leverage existing relationships with high quality subcontractors to maximize participation. Granite can self-perform nearly all scopes of work for this project if subcontractor coverage is lacking.	Expedited schedule with high labor demand on structures. Limited subcontractor resources in an expanding market.	
	<b>AVAILABILITY OF TRUCKING, IMPORTED BORROW, AND AGGREGATES:</b> Shortages could cause cost and schedule impacts.	Design project components and phasing with consideration of material balance and local materials. Maximize use of recycled materials. Secure borrow sites early, use existing Granite-owned material sources. Leverage existing relationships with local truckers and consider bringing in trucks from other regions for concentrated hauls.	Competition for material & trucking resources with other local projects.	
	<b>CONSTRUCTION AT UPRR FACILITIES:</b> Work plan review and approvals from Omaha may be delayed due to UPRR review workload with CHSRA demand.	Early coordination with UPRR to verify expectations and timeline for approvals. Involve UPRR with partnering and task force planning. Expedite comprehensive work plan submittals to allow extra time for review, use Granite experience to get it right the first time. Leverage existing relationships with UPRR to streamline the process – propose “over the shoulder” reviews with UPRR review consultant before submittal to their HQ staff in Omaha.	UPRR approval is required, review resources are limited in Omaha HQ.	
DESIGN	<b>PROJECT DELIVERY SCHEDULE IS TIGHT:</b> 2019/2020 fiscal year delivery requires fast tracking of development phases.	Expedite preconstruction services contract and begin PCS support immediately. Granite is experienced and will do what it takes to meet the schedule, including helping to expedite permits. 	2019/2020 fiscal year delivery.	
	<b>UPRR DOES NOT ACCEPT PROJECT PLANS OR SCOPE IN A TIMELY MANNER:</b> Unknown UPRR design expectations could delay approval and delay project delivery. 	Early coordination with UPRR to verify their future plans and expectations, then design to accommodate. Involve UPRR with partnering and task force planning.	Project plans require UPRR approval. Existing McConnell overhead clearance is insufficient for adding a second track. UPRR may require removal of old McConnell underpass railroad bridge.	
	<b>DIFFICULT PLAN AND PROFILE GEOMETRY:</b> Design exceptions may be required. Difficult staging to maintain traffic impacts cost, schedule, and traffic mobility.	Early verification of required geometry and staging plans. Brainstorm alternate layouts, designs, and temporary facilities. Consider targeted 55 hour closures for traffic stage tie-ins. 	Minimum clearances at UPRR and River floodplain, limited ROW, large grade profile changes at McConnell.	
RIGHT-OF-WAY	<b>LOCAL AGENCY ROW AGREEMENTS:</b> Local agreements may delay the project or add cost. 	Early communication and coordination with local agencies; include them in early partnering workshop. Verify that Elk Grove land use planning supports closing Eschinger ramps.	Sacramento County and Elk Grove cooperative agreements, Eschinger Road on/off ramps relinquishment.	
	<b>NEW/UNFORESEEN ROW ACQUISITIONS &amp; TEMPORARY CONSTRUCTION EASEMENTS (TCES):</b> Design alternatives or required changes may require added right-of-way or easements which could delay the project.	Early focus on design alternates and confirming ROW and TCE needs. Verify all design assumptions with actual field measurements/survey. Expedite access agreements with adjacent landowners (already started by Granite). Implement alternative construction methods where necessary to reduce the need and size of acquisitions.	The existing Caltrans ROW is narrow and limits access to the work. No current access available through adjacent properties.	
ENVIRONMENTAL	<b>ENDANGERED SPECIES:</b> Land: VELB, Tricolored Blackbirds (TCB), Foothill Yellow-Legged Frog (FYLF) - potential cost/time impacts if habitat is affected. Water: Central Valley Steelhead - limited June to October work window could delay project completion.	Land: Use avoidance and minimization measures from existing CDFW agreements on other Granite projects where applicable. Evaluate potential habitat and likelihood of take in light of recent USFWS guidance. Water: Consult with NMFS on a deviation from the work window and use of water diversion via a limited threat discharge permit. Design bridge span to avoid low flow channel. 	TCB and FYLF species recently listed by the Fish & Game Commission and not analyzed in 2015 IS/MND. Reassess VELB impacts in light of recent USFWS guidance. Protection of steelhead requires working outside of winter flows.	
	<b>WATER QUALITY:</b> The 401 Water Quality Certification could require costly mitigation for impacts (including temporary).	Explore alternative options for material and equipment staging areas (e.g., off-site areas outside of sensitive habitats), to minimize potential for temporary impacts to waters. May significantly lessen fees for Certification and increase likelihood of coverage under a USACE Nationwide Permit.	401 Water Quality Certification required.	
	<b>WETLANDS:</b> Obtaining USACE 404 permit could delay the project.	Position project for coverage under a streamlined Nationwide Permit (e.g., NWP 14) using prior delineation approved in April 2014. Submit application prior to 5-year jurisdictional determination expiration to avoid restarting the jurisdictional determination process.	USACE 404 Permit is required.	

## D. IDENTIFICATION, UNDERSTANDING, AND POTENTIAL SOLUTIONS TO TOP RISKS, *continued*

	Risk Identified	Potential Solutions	Project Constraints	Risk Level
STAKEHOLDERS	<b>IMPACT TO UPRR OPERATIONS:</b> Potential delays to train traffic due to planned, unplanned track outages, or Form B flagged construction operations.	Collaborate with UPRR Operations to minimize operation impacts and determine preferred track outage plan for demolition and allowable work windows for Form B flagging. Install exclusion fence to limit foot traffic within 25 feet of the track.	Track outages and flagging windows are at UPRR discretion.	
	<b>IMPACT TO ADJACENT PROPERTY OWNERS:</b> Poor relationships with adjacent owners will affect project access, schedule, and cost.	Granite has already contacted all adjacent landowners and started good relationships. Proactively communicate project needs, timelines and work with the neighbors to meet their needs.	 Cooperation is needed from adjacent landowners for access.	
	<b>TRAFFIC MOBILITY IMPACTS:</b> Traffic control and/or accidents could cause significant backups and block access. 	Brainstorm design alternatives and innovations to reduce stages and improve access. Optimize schedule to minimize duration of traffic impacts. Implement public outreach/information meetings. Set up communication methods to inform the public timely and accurately. Develop open communication with first responders. Focus MOT plans on maintaining traffic flow and limiting impacts.	Emergency services must be maintained. Minimizing mobility impacts is a high priority. Access to the median requires working from lane closures; traffic congestion has no easy alternative with no other river crossings nearby.	

## E. APPROACH TO MANAGING RISK

On every project risks must be identified early, regularly evaluated, reasonably quantified, and avoided systematically. A fundamental component of the CM/GC process is the opportunity for the owner, designer and construction manager to identify and effectively manage potential project risks together during design, thereby eliminating risk or implementing cost-effective mitigation plans. Granite's experience on multiple CM/GC contracts has resulted in a toolbox of proven systems and processes that proactively manage risk, including: design task forces/constructability reviews, collaborative risk workshops, combined risk matrix and a comprehensive master schedule through design and construction with continual monitoring and updating.

**Design Task Forces / Constructability Reviews:** Project risk will be initially identified through the design task force/constructability review process. These meetings include members from the entire project team and serve as the brainstorming sessions that analyze and guide

the design approach. As the design is advanced, Granite constructability experts will identify potential issues/risks, consider schedule impacts, create mitigation/contingency plans, and create cost estimates of impacts and options. This information will be tracked on the risk register to keep the team informed of the status of the risk items throughout the process.

**Collaborative Risk Workshops:** In collaboration with Caltrans, we will hold several risk workshops at key milestones during preconstruction to identify, track and mitigate project risks. While these risks are routinely discussed during our design task force meetings and project management meetings, the specific workshops focus solely on achieving an understanding of, and consensus on, risk items and the mitigation strategies. Granite will develop a rough order of magnitude cost to apply to each item to understand the cost impact. The rating system not only captures and prioritizes risk items that have potential to impact cost or schedule but also identifies those opportunity items that have potential to



**E. APPROACH TO MANAGING RISK, *continued***

reduce cost or develop schedule flexibility. The focus is on minimizing potential impacts and maximizing potential gains for the identified items.

**Comprehensive Risk Matrix:** We will develop and maintain a comprehensive risk matrix during the CM phase and re-evaluate throughout the project, regularly reviewing and updating it at our design task force meetings and risk management meetings. This risk matrix is a combination of Caltrans' design risk register and Granite's contingency risk assessment, systematically addressing every risk in terms of probability and potential cost. As we identify risks, all team members will have the opportunity to contribute to the mitigation options, their estimated costs, impacts to other stakeholders, schedule impacts, and which team member will be the champion of ongoing action items to continue to define and mitigate project risks.

**Risk/Opportunity Sharing:** Our risk sharing philosophy generally follows the principle: risk should be owned by the party best suited to manage or control the risk. For instance, quantity and production risk are generally owned by the contractor, third party impacts are generally the responsibility of the owner. There are some items where risk ownership could belong to either party, or some type of shared risk could be considered. No black and white rule exists and each situation should be evaluated independently and fairly.

Regardless of ownership, risk mitigation is done in a partnering environment wherein decisions are made with the best interest of the project in mind. The creative use of contingencies, allowances, not-to-exceed amounts, float ownership, and force account work can produce a balanced approach to many risk items. In a high-trust relationship, the Caltrans/Granite team can work through and minimize any potential risk.

**Decision Analysis and Resolution:** With the CM/CG process, plans and specs are advanced to a point where the contractor can do a detailed take-off and put together a hard dollar estimate and schedule for the work – this serves as the baseline to identify high potential cost and schedule issues and evaluate the cost and impact of


risk mitigation. To support the design development and decision-making process in both the preconstruction and construction phases, we will utilize Granite's Decision Analysis and Resolution Tracking (DART) process. The purpose of this process is to quickly identify and evaluate potential value engineering and risk mitigation alternatives and to determine if the time and effort for the recommended change is worth pursuing. Figure 6.7 on the following page shows an example of our DART matrix. The DART process is further detailed below in section 6, (F) Innovation.

**F. PROPOSED APPROACH TO INNOVATION & THEIR AFFECT ON TIME, COST AND/OR QUALITY**

Granite takes a team approach to innovation in our CM/GC process. Each member of the Caltrans/Granite team in the preconstruction process brings a unique quality and perspective in the development of innovations. However, not all innovations provide equal value for the project. Some will produce construction schedule or dollar savings, others may reduce design effort, ROW acquisitions or easements, environmental impacts or impact to the traveling public.

For these reasons, our approach to the innovation process for CM/GC utilizes the DART process mentioned in the previous section. This process was successfully used on the SR 99 CM/GC in Fresno to shave 14 months off the construction schedule, reduce impacts to the traveling public, and reduce construction cost by \$35M and Caltrans ROW acquisition by \$7M. Utilizing this disciplined process will allow for a free flow of ideas that we believe can reduce the construction schedule by at least 12 months, decreasing impacts to the traveling public, reduce environmental impacts at the sensitive Cosumnes watershed, and facilitate approval by UPRR. The following pages include a demonstration of our DART process (Figure 6.7) and a preliminary list of innovations that we believe have merit for further evaluation (Figure 6.8).

FIGURE 6.7: GRANITE'S DART MATRIX

		<b>Decision Analysis and Resolution Team (DART) Tracking Matrix</b>				DART #		0019	
						Proposer		GCC	
						Date		5/30/2018	
Discipline		<input type="checkbox"/> Drainage		<input checked="" type="checkbox"/> Roadway		<input checked="" type="checkbox"/> Structures		<input type="checkbox"/> Utilities	
Area of Improvement		<input checked="" type="checkbox"/> Constructability/Phasing		<input checked="" type="checkbox"/> Material Substitution		<input type="checkbox"/> Standard Spec Change			
		<input type="checkbox"/> Open		<input checked="" type="checkbox"/> Design Alternative		<input type="checkbox"/> General Condition		<input type="checkbox"/> Other	
Item Description		Build McConnell in one stage off line and eliminate two spans							
Proposed Concept		<p>It is proposed to construct the McConnell overhead structure in a single stage and eliminate two spans. An evaluation of various superstructure types indicates that the two approach spans can be eliminated leaving a single span wide enough to provide for a future 2<sup>nd</sup> track, will require an abutment height of approximately 25'. The overturning forces for an abutment of this height can be overcome with use of tie-backs to deadmen. With the tie-back system, the piling would only need to account for axial forces.</p> <p>The span length is well within the reach of a modified Wide Flange Deck Girders placed side by side with a 6" topping slab. By increasing the girder lines a reduction in girder height can be achieved, thus reducing the profile as whole partially offsetting the additional fill required due to the span elimination.</p> <p>A slight change to the horizontal and vertical geometry would flatten fill heights and allow the structure to be built off line. <b>A proof of concept is contained herein. In the proof of concept, the following challenges were noted:</b></p> <ul style="list-style-type: none"> <li>Possible resistance by UPRR due work reduced forward compatibility for a 3<sup>rd</sup> track.</li> </ul> <p><b>The following benefits were also noted:</b></p> <ul style="list-style-type: none"> <li>Only one traffic switch is required</li> <li>Easier permitting and less RR flagging with UPRR</li> <li>Environmental impacts are lessened</li> <li>Use of precast improves quality</li> <li>No shoring is required over UPRR</li> <li>Safety for traveling public, inspectors, and constructors is enhanced</li> <li>Shorter duration of construction</li> <li>Simplified design</li> </ul>							
Impacts on Design on a Schedule Basis		Impacts to Construction Scope on a Dollar Basis		Impacts to Owner/Stakeholder on a Dollar Basis / (User Fee)		Impacts to Construction Schedule on CPM Basis			
It is estimated Design will be reduced by 3 weeks		Reduces 31,995 Sqft of bridge deck, Net scope reduction of \$14,660,625		No change to Owner, Environmental Documents, or third parties. Caltrans TRO is reduced by 88 Days		Overall crew day reduction of 206 days, overall contract day reduction of 88 days			
Factor (Check appropriate box)		Factor (Check appropriate box)		Factor (Check appropriate box)		Factor (Check appropriate box)			
4 <input type="checkbox"/> > 5 weeks added		4 <input type="checkbox"/> > \$250K in cost		4 <input type="checkbox"/> > \$250K in cost		4 <input type="checkbox"/> > 5 weeks added			
3 <input type="checkbox"/> 2 – 4 weeks added		3 <input type="checkbox"/> \$101K - \$249K in cost		3 <input type="checkbox"/> \$101K - \$249K in cost		3 <input type="checkbox"/> 2 – 4 weeks added			
2 <input type="checkbox"/> 1 – 2 weeks added		2 <input type="checkbox"/> \$50K - \$100K in cost		2 <input type="checkbox"/> \$50K - \$100K in cost		2 <input type="checkbox"/> 1 – 2 weeks added			
1 <input type="checkbox"/> < 1 week added		1 <input type="checkbox"/> \$1 - \$50K in cost		1 <input type="checkbox"/> \$1 - \$50K in cost		1 <input type="checkbox"/> < 1 week added			
0 <input type="checkbox"/> No Impact		0 <input type="checkbox"/> No Impact		0 <input type="checkbox"/> No Impact		0 <input type="checkbox"/> No Affect			
-1 <input type="checkbox"/> < 1 week reduction		-1 <input type="checkbox"/> \$1 - \$50K in savings		-1 <input type="checkbox"/> \$1 - \$50K in savings		-1 <input type="checkbox"/> < 1 week reduction			
-2 <input type="checkbox"/> 1 – 2 week reduction		-2 <input type="checkbox"/> \$50K - \$100K in savings		-2 <input type="checkbox"/> \$50K - \$100K in savings		-2 <input type="checkbox"/> 1 – 2 week reduction			
-3 <input checked="" type="checkbox"/> 2 – 4 week reduction		-3 <input type="checkbox"/> \$101K - \$249K in savings		-3 <input checked="" type="checkbox"/> \$101K - \$249K in savings		-3 <input type="checkbox"/> 2 – 4 week reduction			
-4 <input type="checkbox"/> > 5 week reduction		-4 <input checked="" type="checkbox"/> > \$250K in savings		-4 <input type="checkbox"/> > \$250K in savings		-4 <input checked="" type="checkbox"/> > 5 week reduction			
-45 Weighted Score (Factor x 15)		-100 Weighted Score (Factor x 25)		-75 Weighted Score (Factor x 25)		-140		Weighted Score (Factor x 35)	
Time Impact		Cost		Cost		Time Impact			
Reduces 3 weeks for redesign		\$-14,660,625		-192,720				-88 days	
Total Score								-315	
Champion (s) James Waller, Granite Preconstruction Mgr; Doug Lange, Caltrans Project Designer; Caltrans Structures Design Manager									

F. INNOVATIONS, *continued*

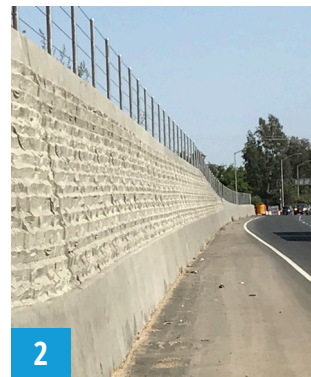


FIGURE 6.8: GRANITE'S PROPOSED INNOVATIONS FOR COSUMNES

Granite Advantage for Innovation:		476 Scope Days = 204 Saved on Construction Schedule	
		\$26,558,200 Cost Savings	
Innovation Description	Benefit	Savings (days)*	Savings (dollars)
USING SIDE BY SIDE WIDE FLANGE PRE-CAST GIRDERS WITH A 6" DECK TOPPING	Reduced construction time, eliminates false work, facilitates UPRR and environmental approvals	60	\$897,600
ELIMINATE APPROACH SPANS AT MCCONNELL	Reduces construction time, reduces cost	45	\$14,660,000
COSUMNES TOP DOWN DEMOLITION (See photo 1)	Eliminate stream restriction windows, reduces cost	45	\$876,000
MCCONNELL TOP DOWN DEMOLITION (See photo 1)	Facilitates UPRR approval	20	\$292,000
TEMPORARY BRIDGES AT COSUMNES (See Figure 6.11)	Allows for single stage construction, reduces traffic switches, lessens environmental impact, reduces schedule by one season	180	\$6,805,600
USE TIE-BACK FOR ABUTMENT OVERTURNING (See Figure 6.10)	Reduces cost, reduces schedule	5	\$73,000
INTEGRATED BARRIER GRAVITY WALLS THAT CAN BE SLIP FORMED (See photo 2)	Reduces cost, reduces schedule	10	\$196,000
USE OF QUEUE SAFETY DEVICES, FOR EARLY WARNING SYSTEMS (See photo 3)	Improves safety to the traveling public, by providing early warning to motorists of advancing queues	0	\$-250,000
SLIP FORMED BRIDGE RAIL	Speeds bridge construction	15	\$369,000
HORIZONTAL ALIGNMENT CHANGE TO CONSTRUCT MCCONNELL OFFLINE (See Figure 6.9)	Allows for single stage construction, reduces traffic switches, lessens environmental impact, reduces schedule by one season	90	\$2,489,000
LOWER VERTICAL ALIGNMENT CHANGE AT MCCONNELL	Reduces import, lessens cost, speeds construction	6	\$150,000

**Cosumnes River Single Stage Bridge Replacement** - As depicted in Figure 6.11, the Cosumnes River Bridges could be replaced as a single stage operation installing temporary two lane bridges within the existing right-of-way on both sides of the existing bridges. With traffic re-directed, both existing bridges could be demolished simultaneously, and the new bridge could be constructed at once edge to edge. To further reduce the schedule, accelerated bridge construction methods, such as the use of side by side wide flange pre-cast girders, would eliminate the need for superstructure false work and require only a topping slab deck pour. These innovations could save over 200 working days, and over \$7M in reduced overhead and escalations, while eliminating an entire season from the project and significantly reducing the number of required traffic switches.

FIGURE 6.9: SHIFT OF HORIZONTAL ALIGNMENT TO CONSTRUCT BRIDGE IN ONE STAGE

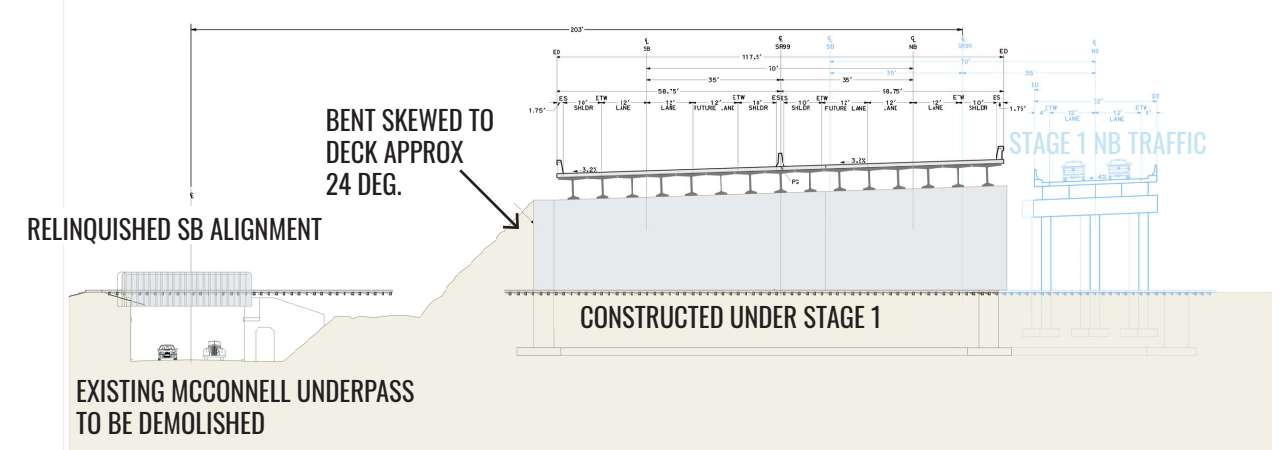


FIGURE 6.10: USE OF DEADMAN DESIGN FOR OVERTURNING AND SIDE BY SIDE DECK GIRDERS

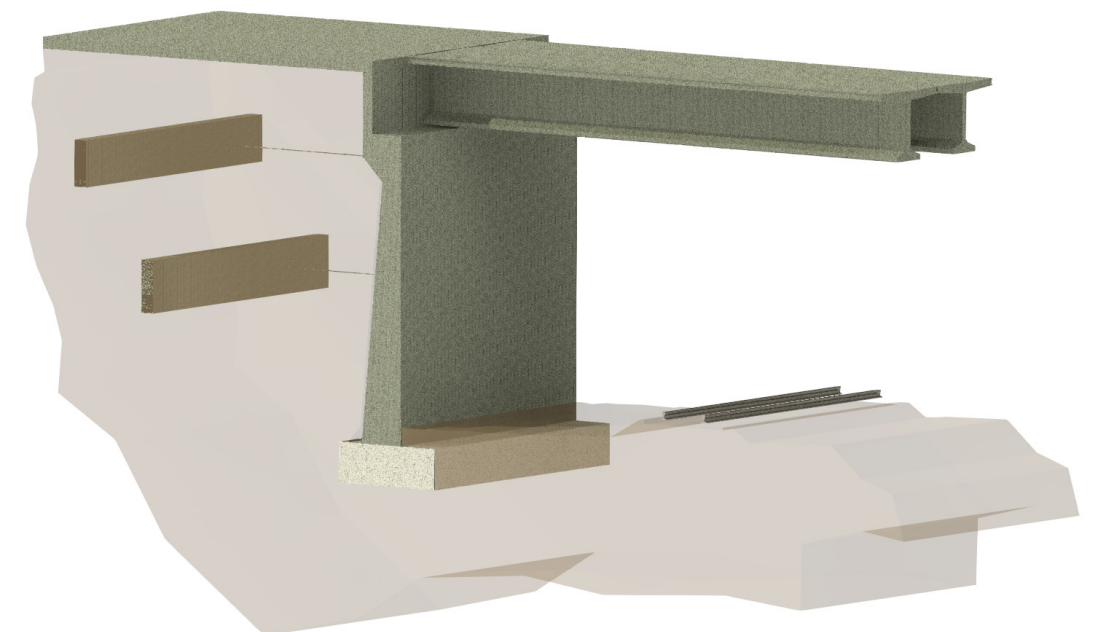
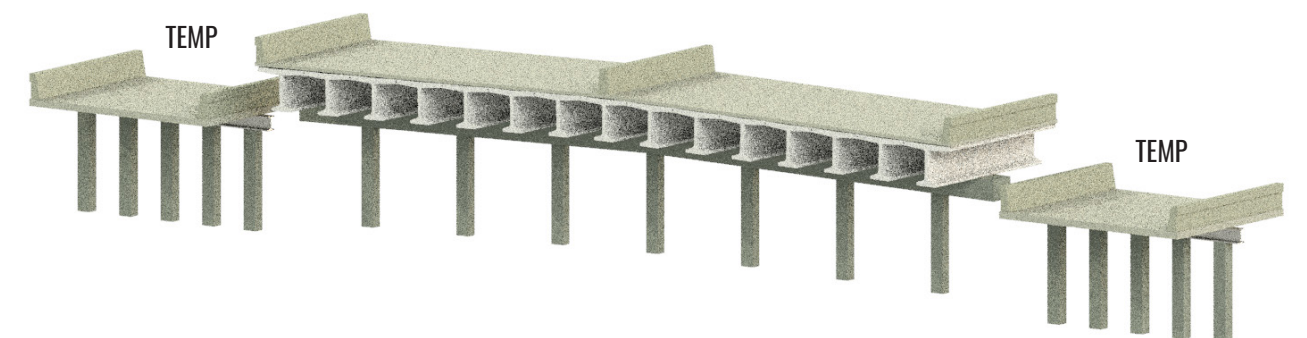


FIGURE 6.11: INSTALLATION OF TEMP BRIDGES TO CONSTRUCT COSUMNES CROSSING AND COSUMNES OVERFLOW IN A SINGLE STAGE







## The Granite Advantage



Granite is a proud member of the NRC, focused on advancing FRA-approved safety training plans in accordance with CFR Part 243. Granite is also a recipient of the **NRC Gold Safety Award** working on UPRR sites of historical importance.

## G. APPROACH TO SAFETY

We understand that the project goals for the Cosumnes Bridge Replacement Project include bridge stability, lane and shoulder widenings and increased barrier rail heights. Our goal through construction is to help minimize the risks with the existing ROW until the ultimate, improved facilities are completed.

To address these concerns, we will tailor our project safety approach to provide the highest possible safety of the crews, inspectors and the traveling public.

### Maintaining a Safe Project for Workers, Traveling Public and Railroad on the Cosumnes Bridge Replacement Project

During the preconstruction phase, both our Project Manager, George Delano, P.E., and Construction Manager, Russ Jensen, will work with Caltrans to develop the MOT plans that maintain a free flow of traffic with clear signage. This effort will include staging the project to reduce traffic control needs that impede traffic flows. We will also utilize an approach that minimizes configuration changes, cross-overs and detours since these items are the greatest cause of accidents during construction. If cross-overs cannot be avoided, long tapers and visual aids will be utilized.

Safeguarding the traveling public and ensuring that both our employees, agency and railroad personnel go home safely is the most important thing we do. The largest variable comes from third party incidents which our daily safety MOT plans will

address and have contingency plans in place for immediate implementation. Construction operations significantly elevate these risks and must be managed daily (and at times hourly) and be adjusted for changing conditions.

Additionally, we understand that the existing bridge structures are subject to additional scour damage by future rain and river flow events. Granite will work with the Caltrans' experts to conduct pre-event and post-event inspections to ensure that further damage has not occurred and take whatever measures necessary to protect the existing structure and ensure a safe traveling roadway.

During construction, the same personnel involved in the preconstruction planning will ensure both our Task Specific Safety Work and MOT Plans are correctly executed in the field as well as re-evaluated for changing conditions – including weather, holiday traffic or other construction projects that have the potential of changing the traffic norms. They will work daily to provide timely information to Caltrans staff, Public Information Officer and the Traffic Management Center (TMC) to provide notification to travelers regarding construction activities, upcoming closures and events that cause potential for unexpected travel time delays. The communication will be provided to the public in a variety of mediums including radio, television, social media, and data sharing with online/phone traffic applications, as directed by Caltrans.



## The Granite Advantage



On Caltrans' Fresno 99 CM/GC Project (pictured above), safety was the first priority through the preconstruction planning phase. **As a result - the rate of vehicular accidents within the stretch of Highway 99 declined during construction.** Queue warning signs (electronic) warn travelers of unsafe or stopped traffic conditions. Proactive communication is key to a safe and successful project.

### G. APPROACH TO SAFETY, *continued*

We will be proactive to enact physical measures to increase public safety. This includes using buffer zones to separate work areas from traffic; and using barriers, fencing, signage and lighting as protection measures.

#### Work Zone Traffic Control and Public Protection for Transportation Projects:

For the Cosumnes Bridge Replacement Project, our team will work with Caltrans to develop site-specific traffic control plans and a comprehensive traffic control strategy tailored to the specific work zones on a daily basis. Measures will be addressed at the daily safety briefing so that the entire project staff is aware of the shift needs and expectations. Special consideration will be given to clear and concise detour routes, entering and exiting protocols for work zones, effective use of attenuator trucks, as well as night work lighting and visibility.

#### Maintaining Safety with UPRR:

Granite has worked side-by-side with UPRR for nearly a century. Many of our operators and onsite personnel are rail certified with on or off the track equipment. Our site-specific safety plan will address the safety hazards near, over, and under any active rail. All onsite personnel will be required to participate in daily job briefings, rule of the day, and "On Track" Safety Requirements with a certified Employee-in-Charge/Flagman before entering or working within rail ROW. In California alone, Granite has completed \$1B in construction for railroad and rail facilities within the last five years, and firmly supports UPRR's Total Safety Culture and UPRR's Courage to Care Pledge.

#### Task Specific Work Plans for all Work Scope Operations:

Granite Construction conducts Tailgate and Take-5 meetings at the beginning of every shift. These meetings communicate the Daily Task Specific Work Plans and potential safety issues to each crew and inspection team prior to the commencement of work. It is imperative that all individuals have clear and specific expectations for completing the days tasks. If conditions or tasks change during the shift a new Take-5 meeting will be held before continuing with the revised work task. Every member of the crew is empowered to stop the work and conduct a new Take-5 discussion to address the changed conditions.

It is Granite's intention to construct the Cosumnes Bridge Replacement project with **zero accidents and incidents**. This is not just for Granite personnel and subcontractors, but for project inspectors, and the traveling public.



# COSUMES BRIDGE REPLACEMENT



APPENDIX A: RESUMES

## APPENDIX A

Resumes





## PROJECT MANAGER GEORGE C. DELANO, P.E.

**Years of Experience:** 38

**Licenses/Registrations:**

Professional Engineer, CA #36342 -1983 - Present, Expires (06-2020)  
American Society of Civil Engineers (Member)

**Education:**

BS, Civil Engineering, University of Vermont, 1980

**Areas of Expertise:**

- Project Management
- Highway Construction & Realignment
- Bridge/Structures
- Caltrans Partnering Process
- Preconstruction Services Management
- Stakeholder Coordination
- Design Management
- Value Engineering
- Constructability Review
- Construction Phasing
- Risk Identification & Mitigation
- Maintenance of Traffic
- Subcontractor Management
- Project Controls Management

**Position Description/Responsibilities:** As Project Manager, George Delano will be 100% dedicated to this project to plan, organize, schedule and direct all activities beginning with the initial CM/GC Services through completion of the construction. He will ensure adequate personnel and other resources are made available for the project. He will act as the Single Point of Contact with Caltrans. George will collaborate with the Project Team and manage the CM/GC team to ensure delivery of all tasks required for Preconstruction and Construction Services. George will be responsible for ensuring that the project is delivered in accordance with the design and project contract requirements. He will participate in design and constructability reviews, public and stakeholder meetings and estimating during preconstruction services. He will be available at all times while construction is in progress.

**Authority:** George has management authority over all of the Granite direct reports and will ensure dedication of these employees to the project. He has the authority to negotiate a GMP with Caltrans. He has authority to enter into subcontracts, consulting agreements, and purchasing agreements on behalf of Granite. During construction George is empowered to "Stop Work" when a dangerous situation is observed, or for an environmental or quality issue. He has authority over daily construction operations as well as field and subcontractor staff.

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George is a decisive and results-focused leader providing more than 38 years of experience in heavy civil public and private work and has built totaling more than \$850M. As a Senior Project Manager and leader for Granite, George brings a long list of achievements in the industry. Granite chose George to lead the CM/GC on the Cosumnes Bridge Replacement project because of his vast experience building bridges and his experience as Senior Project Manager on the SR 99 CM/GC. He sets the standard for thinking outside the box when it comes to innovation and value engineering concepts and ideas. He instills excitement about a project, which leads to continuing to find cost and schedule savings throughout the construction process. He commands respect and provides an exceptional partnering atmosphere while bringing forward a desire to provide the highest quality project delivery possible.



**\$155M SR 99 CM/GC, Fresno, CA**

**Project Role:** Senior Project Manager  
**Contact:** Michael Weber, Construction Office Chief  
**Phone:** (559) 246-9422  
**Email:** michael.weber@dot.ca.gov

**Dates:** 2015 – Present  
**Time On Project:** 90%  
**Project #:** 06-2HT114, 06-2HT104

This project realigns two miles of SR 99 approximately 100' to the west to allow room for future construction of the CHSRA adjacent to the UPRR Fresno yard. An Early Work Scope contract was completed in October 2016, which required the relocation of utilities and rebuilding freeway ramps to accommodate detoured traffic for the main contract phase of the project. Southbound SR 99 was widened from Clinton Avenue to Olive Avenue in this phase. The main contract to realign the highway from Ashlan Avenue to Clinton Avenue and reconstruct the Ashlan Avenue and Clinton Avenue interchanges is 80% complete. Both phases of construction involve road and bridge work, wet and dry utilities, traffic signals, and utility relocations with multiple stakeholders.

**Responsibilities include:** George led the \$2.4M preconstruction services and was Senior Project Manager on both construction phases for the effort on this pilot project. He built a high performing/collaborative team with Caltrans design and construction staff while providing constructability reviews, schedule and cost analysis, and coordination with outside stakeholders. Value engineering proposals implemented reduced construction cost by \$35M and saved substantial time on the projected schedule for construction. Final pricing negotiations resulted in a \$155M+ construction contract, including a \$28M early work package and \$12M in CHSRA required scope reductions. Numerous challenges from third party stakeholders required extraordinary teamwork with Caltrans to keep the project on schedule and on budget. The project team successfully resolved a number of potential claims initiated by subcontractors without the need of a review by the DRB.

**\$250M Folsom Dam Phase 3, U.S. Army Corps of Engineers (USACE), Folsom, CA**

**Project Role:** Project Manager – Gate Installation  
**Contact:** Steve Gladwell, USACE  
**Phone:** 916-557-7100  
**Email:** Steve.E.Gladwell@usace.army.mil

**Dates:** 10/2013 – 11/2014  
**Time On Project:** 75%  
**Project #:** W91238-10-C-0038

Folsom Dam is located on the American River, approximately 25 miles upstream of Sacramento, California. The new auxiliary spillway provides additional spilling capacity and allows reservoir drawdown in advance of predicted storm events and seasonal snowmelt in the American River watershed. The Control Structure contract consisted of the construction of a concrete gravity dam containing six submerged tainter gates. Phase 3 involved excavation for the control structure and its construction.

**Responsibilities include:** Developed installation plans, temporary supports, heavy pick plans and provided construction oversight for the assembly and installation of the new tainter gates and bulkhead gates for the new \$250M auxiliary spillway control structure project at Folsom Dam. Extensive interaction with USACE design and construction personnel as well as the gate fabricator. Successfully installed all gates within tolerances of 3/16", under budget and within schedule with no injuries.

**\$51M Sacramento Railroads Track Relocation, Sacramento, CA**

**Project Role:** Project Manager  
**Contact:** Hank Doll, Vali Cooper  
**Phone:** (916) 925-0952  
**Email:** hank.doll@valicooper.com

**Dates:** 03/11 – 03/13  
**Time On Project:** 100%  
**Project #:** T15029005

George served as Project Manager for this high-profile \$51M relocation of railroad tracks in an environmentally sensitive (Brownfield) area. The project was part of a 245-acre redevelopment effort in downtown Sacramento. Granite completed over 140,000 man-hours on the project with no injuries and zero environmental violations.

The work involved relocation of approximately 2.3 miles of heavy rail track, utility infrastructure and site improvements, along with construction of new passenger tracks, passenger tunnels and platforms. The

significant structural concrete work (15,000 cy) included the construction of a cast-in-place concrete pedestrian tunnel, maintenance and fueling truck service tunnel, various utility modifications, and new utility installations. Other aspects of the work included the construction of structural steel canopies, underground and above ground water detention structures, a pump station, and various architectural finishes and site furnishings. Other utility installations included domestic and fire water systems, fire sprinkler systems, sewer, combined sewer, storm water, fuel dispensing and computer tracking systems, oil water separation systems, track pan and under-drain systems. Utilities were installed by cut and cover, bore and jack, micro-tunneling and via directional bore methods. The 200,000 cy of grading operations included extensive over-excavation and re-compaction.

**Responsibilities included:** George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, and safety. He managed the onsite project team including coordination with the owner and third party stakeholders. George provided leadership and extensive coordination with government and regulatory agencies and stakeholders during each phase of the project, including coordination with UPRR. He managed aspects of environmental sensitivity including the protection of historic structures and coordination with ongoing soil and ground water remediation, hazardous materials, archeological, noise and vibration monitoring.

### **\$35M Highway 20 Roadway Realignment, Smartsville, CA**

**Project Role:** Project Manager  
**Contact:** Troy Scheiber  
**Phone:** (209) 948-3966  
**Email:** troy.scheiber@dot.ca.gov

**Dates:** 09/06 – 08/08  
**Time On Project:** 100%  
**Project #:** 03-1A5304

George served as Project Manager for the Caltrans \$35M rehabilitation of a 4.2- mile stretch of highway in Nevada County, California. George managed bridge construction over a watershed area and executed the project with zero violations of environmental regulations. The work involved roadway realignment, stabilization of exposed slopes that had become unstable due to heavy rain seasons. The work was performed parallel to sensitive creek and watershed areas - environmental protections were of paramount importance. He oversaw the development and administration of a health, safety & environmental plan that protected the environment from stormwater pollution, motorists from construction-related environmental hazards, and workers from the hazards of performing construction in an active transportation corridor.

Project scope included: construction of two box girder bridges, three stream diversions, 216,000 cy of roadway excavation, 108,000 cy of blasting excavation, 4,200 LF ductile iron waterline, construction and/or removal of 54 each drainage systems (6,275 LF of 8-inch to 54-inch corrugated steel pipe/reinforced concrete pipe), 418 LF 48-inch to 80-inch welded steel pipe casing, 78,000 tons of aggregate base, and 52,000 tons of asphalt concrete. Major challenges included the coordination of 10 subcontractors, working adjacent to a hazardous highway, tight work windows to complete the bridges (one season), sensitive SWPPP considerations, and extensive blasting zones in populated areas. This was a unit price contract built in staged construction.

**Responsibilities included:** George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, safety, and profitability. He represented Granite in all communications with Caltrans, the owner of the project. The Highway 20 Roadway Realignment required phased construction and special staging plans. George led the team to develop innovations in scheduling and traffic staging that allowed early opening of the revised alignment to the public and substantial completion four months ahead of schedule with shared savings to the Department and Granite.

### **Oakland Bay Bridge Transition to Yerba Buena Island, Oakland, CA**

**Project Role:** Manager of Engineering & Estimating  
**Contact:** Clinton Myers, Sr.  
**Phone:** (916) 919-2600  
**Email:** myers.clinton@gmail.com

**Dates:** 01/04 – 08/04  
**Time On Project:** 100% during  
Concept Design/Bid  
**Project #:** 04-0120R4

George was the Manager of Engineering and Estimating responsible for all aspects of conceptual design, scheduling, and estimating for the successful bid of the temporary bypass. The project created the temporary span between the steel cantilever trusses of the San Francisco-Oakland Bay Bridge and the connections to the Yerba Buena Island Tunnel. This involved 7,600 tons of steel and 13 footing and column supports to create the bypass



that would allow the 280,000 vehicles per day that pass over the Bay Bridge to continue to use the structure while the new permanent span was being constructed.

**Responsibilities included:** George was responsible for providing quantities and cost estimates, value engineering, and constructability review during the conceptual design and bidding phase. He coordinated roadway improvements with the structures components on the project.

### **\$64M I-680/I-780 Interchange, Benicia, CA**

**Project Role:** Project Manager

**Contact:** Igor Tsigelman, Caltrans Resident Engineer

**Phone:** (925) 602-9004

**Email:** igor.tsigelman@dot.ca.gov

**Dates:** 01/02 – 09/03

**Time On Project:** 100%

**Project #:** 04-006064

George was the Project Manager for this \$64M new highway interchange in a historic section of Benicia, California. The project featured multiple high level bridges and freeway ramps in rugged terrain with multiple crossings of railroads and fuel lines, multistage construction and coordination with adjacent main span crossing of Carquinez Strait and new toll plaza contracts. The bridges are post-tensioned cast in place construction with conventional and lightweight concrete supported on large diameter CIDH foundations. Even with the heavy civil scope of work involving large scale use of heavy equipment in confined and environmentally sensitive spaces, the work was performed without lost time incident or violation of environmental protections.

**Responsibilities included:** George was responsible for scheduling, cost control, change order negotiations, and coordination with Caltrans, stakeholder agencies and subcontractors. He served as the Point of Contact with Caltrans and participated in the Caltrans Partnering process.

### **\$50M Lake Natoma Crossing, Folsom, CA**

**Project Role:** Project Manager

**Contact:** Dave Nugen, Folsom City Engineer

**Phone:** (916) 355-7247

**Email:** dnugen@folsom.ca.us.

**Dates:** 1997 – 2000

**Time On Project:** 100%

**Project #:** Not Available

George managed the overall construction of this new \$50M Lake Natoma Crossing project. That work involved new arterial realignment, installation of trestles, and construction of a new concrete bridge (in water with piers) over the American River. He also managed the Design-Build portion of the Sacramento LRT ramp structure and a Cost Reduction Incentive Proposal for the redesign of the structure terminus of Sacramento Regional Transit's Folsom Line on this project. This was an AGC Constructor Award project. The environmental issues included protection of a salmon fishery, and realignment of tributary creeks, and the work was performed with zero California fish and game or environmental violations.

The Lake Natoma Crossing was proposed to relieve transportation bottlenecks that occurred as motorists crowded onto the few bridges spanning the Sacramento River. The existing bridge was a two-lane, poorly aligned structure that contributed to the problem and so a new high-capacity, 2,300-foot span was designed as a replacement. The new bridge featured elegant design elements, including architectural arches, parabolic arched 328-foot main spans, and state of the art friction pendulum seismic bearings. It was constructed through the environmentally sensitive Negro Bar State Park, across Lake Natoma, and through Old Town Folsom.

**Responsibilities included:** George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, safety, and profitability. George was also responsible for all communications with the City of Folsom, the owner of the project.



## Construction Manager Russ Jensen

### Years of Experience: 32

### Licenses/Registrations:

Qualified SWPPP Developer (QSD)  
Certified Professional in Erosion and  
Sediment Control (CPESC)  
Caltrans/Industry Fundamentals of  
Partnering Trainer

### Education:

Bachelor of Science in Construction  
Management, Cum Laude – Central  
Washington University, 1988

Associate in Arts and Science in Liberal  
Arts – Big Bend College, 1985

### Areas of Expertise:

#### Pre-Construction Services:

- Project Design
- Value Analysis
- Cost Estimating
- Joint Project Agreements
- Encroachment Permits

#### Construction Services:

- Construction Management
- Structures
- Agency Coordination
- Utility Coordination
- Railroad Coordination
- Maintenance of Traffic

#### Post Construction Services:

- Highway Maintenance
- Highway Operations

**Position Description/Responsibilities:** As Construction Manager, Russ will plan, schedule and direct all project construction activities in order to ensure that the project is delivered with strict adherence to the design and project requirements. He will be on site during all construction activities. He will work with the team to develop a schedule and budget, and then deliver to those specific plans. He will participate in constructability reviews and estimating during preconstruction services. Russ will manage Granite's construction staff, craft labor, subcontractors and suppliers during construction; and he will be responsible for enforcing the project's safety, quality and environmental plans and policies.

**Authority:** Russ has the authority to "Stop Work" when a dangerous situation is observed, or for an environmental or quality issue. He has authority over daily construction operations including field and subcontractor staff.

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Russ has over 30 years of experience in the heavy/civil construction industry working for Granite. Russ was chosen to be the construction manager for this project because of his vast experience in projects involving bridge structures, working in high traffic environments, and his superior highway construction knowledge.

Over the last fifteen years, Russ has almost exclusively worked with Caltrans and public agency projects. He is well versed in Standard Specifications and develops strong relationships with project teams.

**\$34M Atwater Merced Expressway / SR 99 Interchange Project, Atwater, CA****Project Role:** Project Manager**Contact:** Bryan Kroeger, NV5**Phone:** (559) 367-6262**Email:** bryan.kroeger@nv5.com**Dates:** 2013 – 2017**Time On Project:** 100%**Project #:** 300-997

The Atwater Merced Expressway / SR 99 interchange is located in unincorporated Merced County and was constructed in anticipation of extensive growth expected to occur east of the interchange. Six new bridges and a realignment of SR 99 required multiple stages and phases of construction and traffic control. Russ's team proposed and Caltrans accepted a staging design change incorporating a temporary realignment of existing north bound traffic to minimize the number of construction phases. This maximized efficiency during construction, minimized public safety concerns and created a safer work environment. Canal Creek, which ran through the project, required coordination with multiple environmental agencies, and staging of the work during the dry season while protecting the waterway and its inhabitants. Working with the local agencies, Granite was granted multiple extensions to the permit work window during the winter months in the Canal Creek area. NV5, the Owners representative, and Granite cohabitated in side by side trailers to maximize interpersonal communication and resolve issues at the lowest possible level as quickly as possible.

**Responsibilities include:** Overall responsibility for projects financial performance, safety, environmental compliance, quality, production, and owner relations.

**Award:** Caltrans Partnering Success in Motion Gold Award

**\$61M I-5 Pavement Rehabilitation, Caltrans, Elk Grove, CA****Project Role:** Project Manager**Contact:** Meshack Okpala, Caltrans**Phone:** (916) 718-8051**Email:** meshack.okpala@dot.ca.gov**Dates:** 2011 - 2013**Time On Project:** 100%**Project #:** 03-0F5904

The Interstate-5 (I-5) Elk Grove project is a 17-mile long project, with over 79 lane miles running from Sacramento to the San Joaquin County line. With seven bridges and nine overcrossings, the I-5 project required complex multi-bridge rehabilitation involving deck and barrier treatments, guard rail, sign structures and approach slabs. This work required detailed phasing and traffic control coordination. Multiple environmental components of the project included surveys and protection of nesting bats, birds and reptiles. In addition the corridor spanned several water crossings with specialized storm water requirements, endangered species protection and archeological awareness. The project was constructed on a busy stretch of I-5, with day and night operations over multiple seasons. Russ and his team completed the project on-time and within the fixed price for the original scope. In addition, Russ developed a Value Engineering Cost Proposal to replace AB with lime treatment for a savings of \$1.6M.

**Responsibilities include:** Overall responsibility for projects financial performance, safety, environmental compliance, quality, production, and owner relations.

**Awards:** Caltrans Partnering Success in Motion Gold Award  
Caltrans Excellence in Partnering Silver Award



## Granite Construction North Coast Area, Ukiah, CA

**Project Role:** Area Construction Manager  
**Contact:** N/A  
**Email:** N/A

**Dates:** 2008 - 2011  
**Time On Project:** 100%  
**Project #:** N/A

Construction Manager overseeing multiple projects ranging from \$500,000 to \$15M with an annual volume \$35M. Projects were located from Santa Rosa, CA to the California/Oregon border and were primarily city, county or State transportation projects with full scope bridge structures and paving operations.

**Responsibilities include:** Overall construction responsibility for \$35 million/year operation. He was responsible for the profitability of all project, field operations and equipment; he managed multiple project managers and engineers. Russ managed safety, quality, production, and field staff.

**Award:** Caltrans Partnering Success in Motion Gold Award, (Alton Interchange Project)  
 Caltrans Partnering Success in Motion Gold Award, (Highway 29 Reconstruction)

## \$13M Highway 20 Rehabilitation at Cold Creek, Calpella, CA

**Project Role:** Project Manager  
**Contact:** Scott Baker, Caltrans  
**Phone:** (707) 274-9451  
**Email:** scott.baker@dot.ca.gov

**Dates:** 2007-2008  
**Time On Project:** 100%  
**Project #:** 01-297704

This \$13M seven-mile project included 18,000 CY of roadway excavation, geosynthetic reinforced embankments, 26,000 tons HMA, and extensive storm drain installations and retrofits. Similar to the Cosumnes Bridge Replacement, no alternative traffic detour existed and work was completed adjacent to live traffic. The project traversed through sensitive water features of Lake Mendocino and the project was held to very strict water quality and storm run-off requirements.

**Responsibilities include:** Russ had complete schedule, quality, safety and environmental responsibility for the project. He oversaw all project scheduling efforts and ensured that the project was constructed in accordance with the project plans and specifications as well as completed on-time, and without claims, litigation or arbitration.

## \$8M Highway 20 Widening at Walker Ridge Road, Caltrans, Lake County, CA

**Project Role:** Project Manager  
**Contact:** Dan Kraft, Caltrans  
**Phone:** (707) 994-5074  
**Email:** dan.kraft@dot.ca.gov

**Dates:** 2005-2006  
**Time On Project:** 100%  
**Project #:** 01-276814

\$8 million 10-mile long project consisting of 27,000 CY of roadway and channel excavation, 28,000 tons of HMA, 14,000 CY of rock slope protection and channel lining. The project required extensive staging and traffic control measures to accommodate the designed horizontal and vertical curve corrections. The environmentally sensitive location of the project required regular biological monitoring and specific worker safety training.

**Responsibilities include:** Overall responsibility for projects financial performance, safety, environmental compliance, quality, production, and owner relations.

**\$5M Highway 20 Pavement Rehabilitation, Caltrans, Calpella, CA**

**Project Role:** Project Manager  
**Contact:** Sergio Mendoza, Caltrans  
**Phone:** (530) 945-2437  
**Email:** sergio.mendoza@dot.ca.gov

**Dates:** 2004-2005  
**Time On Project:** 100%  
**Project #:** 01-316104

\$5M five-mile long, experimental project in Mendocino County which consisted, primarily, of the production and placement of 24,000 tons of varying blends of HMA and RHMA as part of a 5 year METS roadway performance evaluation program. Intensive emissions monitoring and coordination with the California Air Resources Board was a required to ensure successful introduction of rubberized asphalt concrete into the region.

**Responsibilities include:** Overall responsibility for the project's financial performance, safety, environmental compliance, quality, production, and owner relations.

**\$16M Highway 111 Unit 1, Caltrans, El Centro, CA**

**Project Role:** Project Manager  
**Contact:** Shawn Rizzuto  
**Phone:** (619) 718-7810  
**Email:** shawn.rizzuto@dot.ca.gov

**Dates:** 2000 - 2003  
**Time On Project:** 100%  
**Project #:** 11-1993U4

\$16 million five-mile long project constructing a new divided alignment for Highway 111 through El Centro, CA. The project included multiple storm drain crossings, 370,000 CY roadway excavation, 130,000 CY of imported embankment material, 94,000 tons HMA, 63,000 CY PCC paving and multiple signalized intersection installations.

**Responsibilities include:** Overall responsibility for projects financial performance, safety, environmental compliance, quality, production, and owner relations.

**\$5M Pala Road Bridge, City of Temecula, Temecula, CA**

**Project Role:** Project Manager  
**Contact:** Greg Butler, City of Temecula, CA  
**Phone:** (951) 506-5100  
**Email:** greg.butler@temecula.gov

**Dates:** 1999 - 2000  
**Time On Project:** 100%  
**Project #:** N/A

\$5M bridge replacement project consisting of channel realignment, structure excavation, deep-well dewatering, concrete pile driving, parabolic soffit box girder bridge construction, roadway realignment and bridge demolition.

**Responsibilities include:** Overall responsibility for project's financial performance, safety, environmental compliance, quality, production, and owner relations.



## LEAD ESTIMATOR SCOTT HENNESSY

### Years of Experience: 36

### Licenses/Registrations:

OSHA Competent Person  
Training, Granite Supervisors Training  
Program, AGC Supervisory Training  
Program

### Education:

BS, Construction Management, California  
State University, Chico 1982

### Areas of Expertise:

- Cost Estimating/GMP Development
- Estimating Instructions and Universal  
Standards/Weight for ICE Estimate
- Risk Assessment/Tracking
- DART Matrix
- HCSS Estimating Software
- Value Engineering
- Constructability Review
- Market Survey of Vendor and Supplier  
Resources
- Construction Bid Package Development
- Project Management
- Construction Management

**Position Description/Responsibilities:** As Lead Estimator, Scott Hennessy will lead the estimating effort through Preconstruction Services including GMP negotiations. Scott will be responsible for creating the open cost model for the project, estimating each milestone in the Opinion of Probable Construction Cost Cycle (OPCC) and partner with Caltrans to prepare alternate cost estimates. Scott will manage quantity verification, provide detailed production input and reports to the scheduling team, life-cycle cost estimates, and provide cost related information for all cost and risk assumptions.

**Authority:** Scott has the authority to share cost information including crew composition and history of productions with his Caltrans and Independent Cost Engineer counterparts (Open Book Cost Estimating). Scott has the authority to interact with subcontractors and suppliers and discuss innovation alternatives, current cost considerations, and escalations. While onsite, Scott has authority to “stop work” if in the event of unsafe conditions.

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Scott has been the lead estimator on Sacramento-area transportation projects totaling at over \$10B, and over the course of his 36-year career has managed projects totaling more than \$750M in overall scope of work. Many of Scott’s past projects have been for Caltrans, providing him with a knowledge base of the agency’s standard specifications and design standards that will be vital to CM/GC delivery of the Cosumnes Project. He is skilled at developing quantities and cost estimates critical to the analyses of design alternatives and to discovering ways to meet project objectives while reducing overall costs.



### **\$155M Caltrans CM/GC State Route 99, Fresno, CA**

**Project Role:** Lead Estimator

**Contact:** Michael Weber Construction Office Chief

**Phone:** (559) 246-8422

**Email:** Michael.Weber@dot.ca.gov

**Dates:** 2014-2016

**Time On Project:** 100%

Preconstruction

**Project #:** 06-2HT114, 06-2HT104

Scott was the Lead Estimator for this CM/GC project, which consists of SR 99 realignment for the High Speed Rail Project. Granite provided the preconstruction services and Scott led the estimating effort for this 3 mile realignment. Stakeholders included the HSR, City of Fresno, and Caltrans for this staged project in high volume traffic area with new bridges and walls, new highway and ramps, and rail corridor work.

**Responsibilities included:** Scott was responsible for leading the estimating team through the various stages of the cost estimate, working with owner and Independent Cost Estimator (ICE) to develop and manage value engineering proposals, risk and assumptions, and ultimately GMP negotiations.

### **\$7M Caltrans CM/GC State Route 140, Mariposa, CA**

**Project Role:** Lead Estimator

**Contact:** Grace Magsayo Project Manager

**Phone:** (209) 948-7976

**Email:** Grace.Magsayo@dot.ca.gov

**Dates:** 2014-current

**Time On Project:** 100%

Preconstruction

**Project #:** 10-0P9201

Scott is the Lead Estimator and Project Sponsor for the \$7.3M excavation portion of the total \$50M CM/GC project as a subcontractor to Wadsworth/ Myers, JV. Granite provided preconstruction services and Scott developed the scope, pricing, risk and assumptions, and value engineering proposals for the slide removal portion of the job.

**Responsibilities included:** Scott is responsible for managing the estimating team throughout the cost estimate process, working with owner and ICE to develop and manage value engineering proposals, risks and assumptions, and GMP negotiations.

### **\$130M Regional Transportation Commission – SouthEast Connector CM/GC, Reno, NV**

**Project Role:** Estimator

**Contact:** Garth Oksol, Nevada State Manager (Parsons)

**Phone:** (775) 885-2433

**Email:** Garth.Oksol@parsons.com

**Dates:** 11/13 – 01/14

**Time On Project:** 20%

**Project #:** 532013

Scott is the Estimator for this \$130M CM/GC project, which will connect Sparks Boulevard and Greg Street down to the intersection of Southwest Parkway and Veterans Parkway. This corridor is presently underserved to meet the challenge of 120,000 cars per day from 13 regional roads to the west of I-580, and another 103,000 vehicles funneled in from three regional roads. Granite is leading the preconstruction services and Scott helped develop the GMP for the general contractor phase of work. The project includes a six-lane road, provides opportunities for multimodal improvements, and is being designed to emphasize and protect the assets of the natural environment. Stakeholder contribution to the design involves a range of public interest and community groups. Being developed through a wetlands area, the design includes bridges and culverts, along with recreational pedestrian paths and biking trails.

**Responsibilities included:** Scott is provided estimating and GMP development support, including work breakdown structure, final estimate development, quantity calculations, owner coordination/collaboration, vendor

communications, and subcontractor management and close collaboration with the Owner's ICE. Scott is an expert in HCSS estimating software. The program is an industry leading estimating program that allows interface with P6 schedules and excel spreadsheets. The software allows Scott to prepare detailed estimates and conduct cost comparisons accurately and efficiently.

### **\$87M Caltrans: SR 99 Arch to Highway 4, Stockton, CA**

**Project Role:** Lead Estimator / Project Sponsor  
**Contact:** Troy Scheiber, Caltrans, Resident Engineer  
**Phone:** (209) 948-3966  
**Email:** [troy.scheiber@dot.ca.gov](mailto:troy.scheiber@dot.ca.gov)

**Dates:** 04/13 – 12/15  
**Time On Project:** 10%  
**Project #:** 0034-11

Scott prepared the final estimate and was the Granite Project Sponsor for the staged construction of four new interchanges and a new railroad overpass along four miles of highway rehabilitation. The work involved extensive relocation of utilities, which was a major impact on the way the work was managed. The \$87M project (\$40M Granite scope of work) included construction of new roadways, reconstruction of an existing highway, and new interchanges and pump stations. This involved 600,000 CY of roadway excavation, 253,000 tons asphalt concrete paving, 135,000 cy of aggregate base, 105,000 lf of K-rail, 5,000 CY of minor concrete, and approximately 40,000 LF of drainage pipe.

**Responsibilities include:** Estimate development, coordination of roadway elements with structure construction, take off quantities, vendor communications, subcontractor management, budget, safety, and production.

### **\$34M Atwater-Merced Expressway, Atwater, CA**

**Project Role:** Lead Estimator / Project Sponsor  
**Contact:** (Prime) Todd George, Nolte Vertical Five  
**Phone:** (559) 661-5226  
**Email:** [todd.george@nv5.com](mailto:todd.george@nv5.com)

**Dates:** 08/13 – 12/15  
**Time On Project:** 10%  
**Project #:** 300-997

Scott was the Lead Estimator and the Granite Project Sponsor for the realignment of SR 99 through Atwater, California, which involved staged construction to realign this section of the existing highway. The \$34M project involved the construction of new roadways, five bridges, 200,000 CY of roadway excavation, 467,000 CY of import borrow, 22,000 CY of jointed plain concrete pavement, 50,000 CY of aggregate base, 45,000 tons asphalt concrete paving and 4,000 CY of minor concrete.

**Responsibilities include:** Estimate development, evaluation and costing project risk items, value engineering concept development and pricing, pricing impacts of multiple traffic handling alternatives, quantities, vendor communications, subcontractor management, budget, safety, and production.

### **\$29M SR 99 Stanislaus County Road Rehabilitation, Turlock, CA**

**Project Role:** Lead Estimator  
**Contact:** Richard Onochie, Construction Engineer  
**Phone:** N/A (No longer with Caltrans)  
**Email:** N/A (No longer with Caltrans)

**Dates:** 2011 – 2012  
**Time On Project:** 25%  
**Project #:** N/A

Scott was the Lead Estimator for \$29M of scope in this overall \$87M project. The roadway realignment involved 300,000 tons of asphalt concrete paving, 30,000 CY of roadway excavation, and 40,000 tons of aggregate base. The project involved night shift work requiring close coordination with other activities in adjoining road closures and other contracts, detailed and innovative traffic control configurations requiring extensive planning.

**Responsibilities included:** Estimate development, quantities, vendor communications, subcontractor management, evaluation of traffic control options, profit and loss, safety, and production, as well as project planning, scheduling and coordination.



## ENVIRONMENTAL/PERMIT MANAGER

# JORDAN MAIN

**Years of Experience:** 18

**Licenses/Registrations:**

California Construction and Industrial  
Materials Association Sacramento

Metropolitan Chamber of Commerce (Land  
Use Committee)

Certified Erosion Sediment and Storm  
Water Inspector (CESSWI) - *Previous*

HAZWOPER (40 hour) – *Previous*

Method 9 - Visible Emissions Evaluation  
(VEE) - *Previous*

**Education:**

B.S., Environmental Toxicology, University  
of California, Davis, 2001 – with honors

**Areas of Expertise:**

- CEQA Environmental Review and Compliance
- Wetlands - Clean Water Act Section 404 Permitting (US Army Corps of Engineers)
- Endangered Species Act - Section 7 and Section 10 Consultation (US Fish and Wildlife Service, National Marine Fisheries)
- Water Quality Permitting and Compliance (Storm Water, 401 Certification, Waste Discharge Requirements)
- Central Valley Flood Protection Board Encroachment Permitting
- CA Department of Fish and Wildlife Streambed Alteration Agreements
- Air Quality Permitting and Compliance

**Position Description/Responsibilities:** Jordan is responsible for ensuring that the project is constructed in accordance with the environmental commitments and permits as specified within the project's adopted mitigation measures and regulatory permit conditions.

**Authority:** Jordan is responsible for ensuring that the project is constructed in accordance with the environmental commitments and permits as specified within the project's adopted mitigation measures and regulatory permit conditions. Jordan has authority to "Stop Work" and has extensive experience working near sensitive bodies of water. Jordan has an excellent understanding of local, state and federal environmental regulations.

**Reporting:** Jordan will report to Project Manager, George Delano.

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Jordan has an excellent understanding of local, State and Federal environmental regulations. Jordan has nearly two decades of experience managing land use, environmental and regulatory permitting processes involving all levels of local, state and federal oversight. He has successfully managed multiple large-scale land use and regulatory permitting projects throughout California. In addition, Jordan has practical experience on complex construction projects and understands the relationship between construction means and regulatory requirements. Prior to co-founding Compass Land Group, he spent eleven years with Granite Construction Company, where he managed their permitting and environmental compliance programs in Northern California. Jordan is a certified Lean Six Sigma Black Belt particularly adept at bringing practical solutions to complex technical, regulatory and environmental challenges.



## Morrison Creek Realignment Project

**Project Role:** Environmental Manager (Internal)  
**Contact:** Aaron Vasbinder, Plant Manager  
**Phone:** (209) 234-3577  
**Email:** aaron.vasbinder@gcinc.com

**Dates:** 2012-2014  
**Time On Project:** 10%  
**Project #:** N/A

Regional oversight of the environmental components of a mine expansion project involving realignment of a portion of Morrison Creek in Sacramento County. Project involved compliance with adopted CEQA mitigation measures, a Central Valley Flood Protection Board Encroachment Permit, construction storm water permit requirements, as well as compliance with a U.S. Army Corp of Engineers Section 404 Permit.

**Responsibilities include:** Conduct routine inspections of project site to assess compliance with conditions of approval, mitigation and monitoring plan, and regulatory permit requirements. Interaction with regulatory agency staff and internal construction/plant operations personnel regarding construction schedule and environmental compliance requirements

## Folsom Dam Auxiliary Spillway Project , Folsom, CA

**Project Role:** Environmental Manager (Internal)  
**Contact:** Jon Balzer, P.E.  
**Phone:** (530) 621-5920  
**Email:** Jon.Balzer@edcgov.us

**Dates:** 2012-2014  
**Time On Project:** 10%  
**Project #:** N/A

Regional oversight of the environmental components of a \$100+M project involving construction of an auxiliary spillway to reduce flood risk. Project involvement included environmental inspections to ensure compliance with regulatory permit conditions, technical assistance with construction storm water Best Management Practices (BMPs), air quality monitoring and reporting to the Sacramento Metropolitan Air Quality Management District (SMAQMD).

**Responsibilities include:** Provide technical assistance to construction operations team regarding complex storm water management requirements. Oversee reporting of off-road equipment emissions to the Sacramento Metropolitan Air Quality Management District. Conduct routine inspections of project site to assess compliance with regulatory permit requirements.

## City of San Mateo Regulatory Permitting, San Mateo, CA

**Project Role:** Technical Advisor  
**Contact:** Sarah Scheidt, Regulatory Compliance Manager, City of San Mateo  
**Phone:** (650) 552-7385  
**Email:** sscheidt@cityofsanmateo.org

**Dates:** 2004 - 2018  
**Time On Project:** 20%  
**Project #:** N/A

Supported the City of San Mateo in obtaining regulatory permits for maintenance activities in the Marina Lagoon. Participated in technical interaction and negotiation of permit conditions with the U.S. Army Corps of Engineers, California Department of Fish & Wildlife, and Regional Water Quality Control Board.

**Responsibilities include:** Review and interpret draft regulatory permit conditions from the California Department of Fish & Wildlife, Regional Water Quality Control Board, and US Army Corps of Engineers. Negotiate revise permit conditions that would meet the objectives of the City's lagoon maintenance program, while still satisfying the regulatory permitting agencies.

## In-Stream Mining - Humboldt, Del Norte, Mendocino and Yolo Counties

**Project Role:** Project Manager

**Contact:** Leslie Wolff, NMFS, Hydrologist, National Marine Fisheries Services

**Phone:** (707) 825-5172

**Email:** leslie.wolff@noaa.gov

**Dates:** 2004-2018

**Time On Project:** 20%

**Project #:** N/A

Complex in-stream and off-channel mine permitting involving consultation with Federal wildlife agencies under the Endangered Species Act. Obtained approval for dozens of U.S. Army Corps of Engineers Section 404 Permits, Section 401 Water Quality Certifications, and Section 1600 Streambed Alteration Agreements.

**Responsibilities include:** Obtain regulatory permits from the US Army Corps of Engineers, National Marine Fisheries Service, US Fish and Wildlife Service, California Department of Fish & Wildlife, Regional Water Quality Control Board, California Coastal Commission, and local Counties for in-stream and off-channel gravel extraction. Serve as primary contact with regulatory agencies and external stakeholders on communications related to project environmental compliance. Perform audits of construction/mining activities in relation to the regulatory permit requirements. Provide accurate monitoring and reporting in accordance with permit conditions.

### Other Relevant Experience

**Environmental Compliance:** Managed a comprehensive ISO 14001 compliant environmental program encompassing all aspects of environmental responsibility (air quality, water quality, hazardous materials). Oversight involved a broad range of construction and industrial operations, and all elements of regulatory planning, permitting, and compliance.

	Morrison Creek	Folsom Dam	San Mateo	In-Stream Mining	Capay	San Bruno	Alton	Fresno County
USACE 404 Permit	●		●	●	●			
CDFW 1600 SAA	●		●	●	●			
RQQCB Water Quality 401 Cert	●		●	●	●			
Central Valley Flood Encroachment Permit	●							
Construction Storm Water Permit	●	●				●	●	
Air Quality	●	●			●			
Endangered Species Act Compliance USFWS, NMFS)	●		●	●	●			
CA State Lands Commission Lic Agreement				●				
Conditions Compliance Monitoring	●	●		●	●	●	●	●
CEQA	●			●			●	●



## PRINCIPAL PALEONTOLOGIST SARAH RIEBOLDT, PH.D.

**Years of Experience:** 17

**Professional Affiliations:**

Geological Society of America

Society of Vertebrate Paleontology

**Education:**

University of California, Berkeley, Ph.D.,  
Paleontology, 2005.

University of Colorado, Boulder, Magna  
cum Laude B.A., Biology, Minor in  
Geology, 1999.

**Areas of Expertise:**

- Paleontological Mitigation Reports including:
  - PMP's and PMR's
- Paleontological Resource Monitoring
- Fossil Collection, Salvage, Identification, and Curation
- Federal, State, and Local Laws, Ordinances, Regulations, and Standards (LORS) Regarding Paleontological Resources

**Position Description/Responsibilities:** Dr. Rieboldt is responsible for preparing a Paleontological Identification Report, and if warranted, a Paleontological Evaluation Report, a draft and final Paleontological Mitigation Plan (PMP) in accordance with Caltrans Standard Environmental Reference (SER). She can provide guidance on the various Federal, State, and local regulations and guidelines regarding paleontological resources as they apply to the project. She also is responsible for scheduling paleontological monitors as needed on this project.

**Authority:** Dr. Rieboldt has the authority to "Stop Work" in case of unsafe condition or evidence of paleontological find.

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Dr. Riebold provides 17 years of experience in the paleontology and geology fields. Dr. Rieboldt's field and laboratory experience includes working on vertebrate and invertebrate paleontology research projects throughout California, Nevada, Utah, Colorado, Wyoming, Texas, and Alabama.

She has eight years of specialized training in paleontological research of natural history collections in museums in California, Colorado, and Illinois. She also has nine years of experience as a field paleontological consultant in California and Utah, monitoring for paleontological resources, and writing paleontological resource assessment reports and mitigation plans. Sarah has experience in monitoring the excavation and construction process on multiple developments and a natural gas pipeline, as well as monitoring drilling and coring operations.



### Caltrans 3-Year On-Call Contract

**Project Role:** Principal Paleontologist

**Contact:** Cheryl Sinopoli, District 12 Archaeologist

**Phone:** (657) 328-6165

**Email:** cheryl.sinopoli@dot.ca.gov

**Dates:** Current and On-Going

**Time On Project:** As

Requested

**Project #:** On-Call Contracts

**Responsibilities included:** LSA provides on-call staffing for Paleontology services throughout the state.

### \$26.9M State Route 120 at Union Road Interchange Project, Manteca, CA

**Project Role:** Principal Paleontologist

**Contact:** Koosun Kim, PE, QSD, Deputy Director of Public Works, City of Manteca

**Phone:** (209) 546-8419

**Email:** kkim@ci.manteca.ca.us

**Dates:** 2016-2017

**Time On Project:** 15%

**Project #:** EA 10-0P200K

LSA conducted environmental technical studies for the State Route 120 (SR 120) at Union Road Interchange Project in Manteca in San Joaquin County. Caltrans proposed this project to improve the functionality of the interchange by modifying the existing overcrossings and ramps, constructing auxiliary lanes, and installing signals for the interchange.

**Responsibilities included:** Dr. Rieboldt analyzed the potential for the No Build Alternative and two Build Alternatives to impact paleontological resources in the Paleontological Identification Report (PIR) for this project.

### \$2.59M Tegner Road Bridge Replacement at Turlock Irrigation District Lateral #5 Canal BRLO-5938(196) Project, Stanislaus County, CA

**Project Role:** Principal Paleontologist

**Contact:** Sambath Chrun, Associate Civil Engineer, Stanislaus County

**Phone:** (209) 525-4133

**Email:** chrums@stancounty.com

**Dates:** 2014-2016

**Time On Project:** 15%

**Project #:** BRLO-5938(196)

LSA prepared an Initial Study and Mitigated Negative Declaration for the Tegner Road Bridge Replacement at Turlock Irrigation District Lateral #5 Canal BRLO-5938(196) Project in Stanislaus County. The proposed project involves the replacement of the bridge and improvements to the road approaches on Tegner Road and Harding Road.

**Responsibilities included:** Dr. Rieboldt analyzed the potential for the project to impact paleontological resources and summarized the results of the analysis in a paleontological resources technical memorandum, as well as in the appropriate section of the environmental document.

LSA prepared the environmental document and conducted environmental technical studies for the State Route 99/120 Interchange Connector Project in Manteca in San Joaquin County. Caltrans District 10, in cooperation with the San Joaquin Council of Governments proposed reconstructing the existing interchange in order to reduce congestion, improve operations, and accommodate forecasted traffic demands in and around the City of Manteca. Dr. Rieboldt prepared the Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) for this project.

**\$50.8M State Route 99/120 Interchange Connector Project, Manteca, CA**

**Project Role:** Principal Paleontologist  
**Contact:** Kevin Sheridan, Project Manager  
 San Joaquin Council of Governments  
**Phone:** (209) 235-0600  
**Email:** Sheridan@sjcog.org

**Dates:** 2016-present  
**Time On Project:** 15%  
**Project #:** EA 1E740

LSA prepared the environmental document and conducted environmental technical studies for the State Route 99/120 Interchange Connector Project in Manteca in San Joaquin County. Caltrans District 10, in cooperation with the San Joaquin Council of Governments proposed reconstructing the existing interchange in order to reduce congestion, improve operations & accommodate forecasted traffic demands in & around Manteca.

**Responsibilities included:** Dr. Rieboldt prepared the Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) for this project.

**\$45.8M State Route 120/McKinley Avenue Interchange Project, Manteca, CA**

**Project Role:** Principal Paleontologist  
**Contact:** Koosun Kim, PE, QSD. Deputy Director of Public Works  
 City of Manteca  
**Phone:** (209) 546-8419  
**Email:** kkim@ci.manteca.ca.us

**Dates:** 2011-2014  
**Time On Project:** 15%  
**Project #:** EA 10-0H890

LSA conducted environmental technical studies for the State Route 120 (SR 120)/McKinley Avenue Interchange Project in Manteca in San Joaquin County. The proposed project involves the construction of a new interchange at SR 120 and McKinley Avenue in order to reduce congestion, improve traffic flow, and accommodate forecasted traffic demands in and around the City of Manteca.

**Responsibilities included:** Dr. Rieboldt assisted in the preparation of PIR/PER & prepared the PMP for this project.

**\$17.5M Interstate 5/Sperry Road Interchange Project, Patterson, CA**

**Project Role:** Principal Paleontologist  
**Contact:** Andrew Malizia, Associate Civil Engineer, Stanislaus County  
**Phone:** (209) 525-4126  
**Email:** maliziaa@stancounty.com

**Dates:** 2015-present  
**Time On Project:** 15%  
**Project #:** EA 10-0G420

LSA prepared the environmental document and conducted environmental technical studies for the Interstate 5/Sperry Road Interchange project in Patterson, Stanislaus County. Caltrans, in conjunction with Stanislaus County and the City of Patterson proposed this project to improve operations, enhance safety, and increase capacity of the interchange. For this project, a No Build Alternative and two Build Alternatives, each with a variant, were evaluated.

**Responsibilities included:** Dr. Rieboldt prepared the PIR/PER to determine the potential for this project to impact paleontological resources and make recommendations regarding mitigation of those impacts.

**Professional Experience**

Paleontologist, LSA, Irvine, California, *April 2013–Present.*

Project Manager, Department of Geological Sciences, California State University, Fullerton, and John D. Cooper Archaeological and Paleontological Center, Santa Ana, California, *April 2012–April 2013.*

Geologist, Geological Survey of Alabama, Tuscaloosa, Alabama, *April 2010–February 2012.*

Collections Assistant, Field Museum of Natural History, Chicago, Illinois, *February 2009–February 2010.*



## PALEONTOLOGICAL MONITOR TARA REDINGER

### Years of Experience: 4

### Professional Affiliations:

Geological Society of America

Society of Vertebrate Paleontology

Southern California Earthquake Center

Western Association of Vertebrate Paleontology

### Specialized Training:

Trained for specialized electrified project areas (Red Rope Training)

Trained to give Workers Environmental Awareness Program training (WEAP)

### Education:

California State University, Fullerton, California, B.A., Earth Sciences, 2014.

Mount San Antonio College, Walnut, California, A.A., Natural Science, 2010.

**Position Description/Responsibilities:** Tara is a paleontologist with four years of experience and is responsible for on-site monitoring and mitigation. She will collect and salvage all discovered fossil materials and has significant experience working on construction sites.

**Authority:** Tara has the authority to “Stop Work” in case of unsafe condition or evidence of Paleontological find.

**Reporting:** Tara will report directly to the Principal Paleontologist, Sarah Rieboldt, PhD, and coordinate her activities through on-site Construction Manager, Russ Jensen.

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Tara’s experience includes field, archival, and laboratory research on projects throughout northern central and southern California; and CEQA cultural resource evaluations and preparation. Since July 2014, Tara has performed paleontological monitoring and mitigation as well as the collection and salvage of fossil materials in numerous counties in California, including Fresno, Kern, Los Angeles, Orange, San Bernardino, San Fernando, San Francisco, San Joaquin, San Mateo, and Santa Cruz. She also has worked on paleontological projects in Colorado and Wyoming. Tara joined LSA in January 2017 and has been the lead paleontologist for the Point Richmond office through the present day.

### Areas of Expertise:

- Paleontological Monitoring and Review
- Extraction, Identification, and Curation of Fossils
- Paleontological Stratigraphic and Geophysical Map Compilation
- Workers Environmental Awareness Program (WEAP) Training



**\$50M Tracy Hills Specific Plan Project, Tracy, CA**

**Project Role:** Paleontological Monitor  
**Contact:** Manny Silva, Integral Communities  
**Phone:** (925) 791-4907  
**Email:** msilva@integralcommunities.com

**Dates:** 2017 - Present  
**Time On Project:** 10%  
**Project:** # N/A

Tara is conducting paleontological monitoring during excavation below a depth of five feet during development of the Tracy Hills Specific Plan Project. This project involves the construction of up to 5,499 residential units in variable density neighborhoods; office, commercial, and light industrial uses; parks; and schools on a total of 2,732 acres in Tracy.

**Responsibilities include:** Tara is working closely with the project managers and the field crews in order to ensure proper protection and mitigation of paleontological resources if found during construction in accordance with all applicable regulations and requirements.

**\$400M Warm Springs TOD Village Project, Fremont, CA**

**Project Role:** Paleontological Monitor  
**Contact:** Mike Consiglio, Land Development Manager, Toll Brothers  
**Phone:** (408) 595-5416  
**Email:** mconsiglio@tollbrothers.com

**Dates:** June 2016 – Present  
**Time On Project:** 25%  
**Project #:** N/A

**Responsibilities included:** Tara conducted paleontological monitoring of all excavation that exceeded 10 ft depth and worked closely with the project managers and the field crews in order to ensure proper protection and mitigation of paleontological specimens if found during construction in accordance with all applicable regulations and requirements

**\$13.2M San Francisco Bay Trail, Pinole Shores to Bayfront Park Project, Pinole, CA**

**Project Role:** Paleontological Monitor  
**Contact:** Sean Dougan, EBRPD Trails Development Program Manager  
**Phone:** (510) 544-2611  
**Email:** Sdougan@ebparks.org

**Dates:** June – October 2017  
**Time On Project:** 75%  
**Project #:** N/A

For development of the Pinole Shores to Bayfront Park segment of the San Francisco Bay Trail, Tara conducted the paleontological resources awareness training prior to construction, as well as paleontological monitoring over the course of five months of construction.

**Responsibilities included:** Tara coordinated schedule with the construction crews and visited the project site to determine whether project activities would occur in paleontologically sensitive deposits, conducted paleontological monitoring when necessary, and prepared daily logs of monitoring activities. Tara also collected and described some vertebrate fossils from the Orinda Formation and assisted with preparation of the Paleontological Mitigation Monitoring Report.

**Professional Experience**

Paleontologist, LSA, Point Richmond, California, *January 2017–Present.*

Paleontologist, Paleo Solutions, Monrovia, California, *November 2014–January 2017.*

Paleontologist, SWCA, Pasadena, California, *June 2014–February 2015.*

Paleontology Laboratory Intern, John D. Cooper Archaeological and Paleontological Center, Santa Ana, California, *January 2013–June 2014.*



## PRECONSTRUCTION SERVICES MANAGER

### James Waller

#### Years of Experience: 26

#### Licenses/Registrations:

ASCE Member  
DBIA Member  
National AGC Contracting Forum

#### Education:

BS in Accounting, American University, 1992  
BS in Chemistry, Minnesota State University, 1991

#### Areas of Expertise:

- CALTRANS CM/GC Process
- CALTRANS Design Standards
- AASHTO Design Standards
- Design Management
- Value Engineering & Evaluation
- 3-Dimensional Modeling
- Structures Estimating
- Civil Estimating
- Independent Cost Review Processes
- Schedule Analysis
- Complex Staging Planning Utilizing Virtual Design and Construction
- Risk Identification & Mitigation
- Complex Structure Sequencing
- Union Pacific Rail Requirements
- Railroad Design
- Design Construction
- Permitting

**Position Description/Responsibilities:** As the preconstruction services manager, James Waller will assist Caltrans in tailoring a unique preconstruction process that best meets Caltrans' needs and goals. James, in conjunction with Scott Hennessey (Lead Estimator), will be responsible for developing and implementing an approach to the cost process that evaluates risk and opportunities. James will lead the design review process to evaluate constructability and design approaches to reduce cost, schedule duration, and impacts to mobility and the environment. James will ensure that the designs are evaluated in a virtual world for fit and disciplined coordination. James will act as a guide to Caltrans, bringing construction and design approaches from multiple DOT's. During construction, James will coordinate and manage the construction engineering needs for falsework, demolition, and critical crane picks. James will also support the intricate work planning required on this project.

**Authority:** James will have the process development authority to tailor a program in the preconstruction phase of the project that will be carried forward to the construction phase. James will have authority to consolidate and evaluate design review comments from staff and make recommendations to Caltrans. James will have the authority to make process changes in preconstruction to ensure quality and safety are never compromised. During construction, James is empowered to "Stop Work" when a dangerous situation is observed, or for an environmental or quality issue.

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In the past 10 years he has collaborated design and construction teams on large, complex design-build and CM/GC projects. During this time, he has demonstrated the ability to find innovative solutions to project challenges and worked to deliver projects on time and under budget. James' practical experience as a construction manager and senior estimator provides a strong foundation for his current role.

James has been a preconstruction leader within Granite sharing his insights on the CM/GC process within the company and has provided management processes and innovative insights that helped local offices win notable projects including the following:

- **Mountain View Corridor CM/GC**, UDOT, \$245M, new 16-mile highway with 11 bridges
- **Southeast Connector CM/GC**, RTC, Reno, a \$152M, 5-mile freeway with 5 bridges
- **Moana Diverging Diamond Interchange CM/GC**, NDOT's first CMAR contract in Northern Nevada
- **I-80 Blackrock Bridge Replacement CM/GC**, UDOT, Salt Lake, this project is UDOT first paperless pilot project utilizing BrIM (Bridge Information Models)
- **Hobart Intermodal Facility CM/GC**, Burlington Northern Santa Fe, \$150M contract in Commerce, CA.
- **I-4 Ultimate P3**, FDOT, Orlando, a \$1.2B reconstruction of I-4 with 126 bridges and 2 stacked interchange rebuilds
- **Tappan Zee Bridge replacement**, New York State Thruway Authority, \$3.1B contract to construct a Twin Cabled-Stayed bridge over the Hudson River
- **Pennsylvania Rapid Bridge Replacement**, PA, \$900M P3 contract to design and re-place 558 bridges though out the state

### **\$155M SR 99 High Speed Rail CM/GC, Fresno, CA**

**Project Role:** Preconstruction Services Manager  
**Contact:** Michael Weber, Acting Office Chief  
**Phone:** (559) 246-9422  
**Email:** michael.weber@dot.ca.gov

**Dates:** 2013 - 2014  
**Time On Project:** 70%  
**Project #:** 06-2HT114

James served as Preconstruction Services Manager on this \$155M project to realign 2.5 miles of new SR 99 highway mainline, reconstruct ramps, construct surface streets and relocate utilities necessary for the construction of a reconfigured interchange, overhead structures and infrastructure to accommodate the California High Speed Rail Authority system between the existing freeway and the UPRR.

**Responsibilities include:** Led the preconstruction effort for the project and for the first work package GMP, which has been completed. Established processes for Caltrans for estimating and risk evaluation for this CM/GC project. Extensive collaboration with Caltrans through the CM/GC process providing innovations and value engineering options resulted in a \$35M savings in construction costs. Some of the biggest savings came from realigning the off ramp geometry to save on ROW acquisition, reconfiguring the bridge design of Clinton Ave. to shorten the duration of construction by nearly a year, and redesigning the barrier wall for the length of the project.

### **\$306M SR 520 Eastside Transit and HOV Design-Build, WSDOT, Bellevue, WA**

**Project Role:** Senior Design-Build Manager  
**Contact:** Brian Dobbin, Construction Engineering. Manager  
**Phone:** (425) 998-5260  
**Email:** DobbinB@wsdot.wa.gov

**Dates:** 01/11 – 12/11  
**Time On Project:** 50%  
**Project #:** (AC)NH-520(046)

This \$306M urban freeway improvements project reconstructed and widened 2.8 miles of existing SR 520 from I-405 to the SR 520 Floating Bridge. The scope included mainline reconstruction, median transit stations and facilities, direct access ramps, interchange reconstruction, shared multi-use paths and trails, landscaped cut and cover lids over the highway, fish passageways, and extensive stormwater treatment and detention facilities.



**Responsibilities include:** Managed the preconstruction services including the establishment of estimating deliverables, design standards, design quality programs, and construction hand-off protocols. Developed value engineering and alternative technical concepts through the design development process for a total savings of \$60M. Developed significant engineering solutions for MOT through the use of 3D infrastructure modeling.

### **\$1.3B Houston Light Rail Phase 2 CM/GC, Metro Solutions, Houston, TX**

**Project Role:** Assistant Design Manager

**Contact:** Robert Chappell, Program Manager for Valley Metro Rail Expansion (formerly, Operations and Maintenance Manager)

**Phone:** (602) 744-5555

**Email:** Rchappell@valleymetro.org

**Dates:** 01/09 – 12/11

**Time On Project:** 50%

**Project #:** CT0800120

James served as the Assistant Design Manager on this \$1.3B project that encompasses four corridors of new light rail, a total of 20 miles, and two storage/inspection facilities in an urban environment. Oversaw the design management, establishing and implementing the design quality program and design directives, standards and criteria.

**Responsibilities included:** Represented the Joint Venture and the Owner with third parties, permitting agencies, and other municipal agencies. He was responsible for the development of a design control process and deliverables schedule to maintain an aggressive construction schedule. He also managed the development and vetting of alternative technical concepts and value engineering efforts. Tasks also included preparation of estimating deliverables and estimating support for final contract scope and price. James optimized the structural steel in the station design, resulting in a 20% reduction in steel weight. He also worked with design staff to optimize the guideway designs that reduced the guideway thicknesses by 2" throughout the corridor. The project was featured at the National DBIA transportation conference in San Jose as a best practice in design setup.

### **\$88M SR 202L HOV Design-Build, ADOT, Chandler, AZ**

**Project Role:** Design-Build Manager and Estimate Lead

**Contact:** James Windsor, ADOT, Deputy State Engineer

**Phone:** (602) 712-8141

**Email:** jwindsor@azdot.gov

**Dates:** 01/10 – 12/10

**Time On Project:** 50%

**Project #:** 202-C(202)N

James acted as the Design-Build Manager and Estimate Lead on this \$88M project that constructed 10 miles of HOV lanes on an urban connector. Scope included construction of two high-speed, direct connect flyover ramps in stacked interchanges and three bridges, for a total of 24 spans. This project provided design and construction of approximately 20 miles of HOV lanes on the SR 202L between the I-10 Interchange and Gilbert Road in Chandler, Arizona. The project delivery was accelerated and completed in 390 days from NTP.

**Responsibilities include:** James led the estimate and procurement process, established packaging, implemented design quality program, and established design directives, standards and criteria. He personally developed alternative technical concepts that resulted a scope reduction that was 41% below ADOT's construction budget and resulted in a 46% shorter project duration.

**Award Winner:** Marvin M. Black Excellence in Partnering (Special Recognition) and Arizona Transportation Partnering Excellence Award.



## Senior Project Engineer Miki Hont, P.E.

### Years of Experience: 20

### Licenses/Registrations:

Professional Engineer, AZ No. 43721

### Education:

MBA, Finance, Cal Poly San Luis Obispo, 2002

BS, Civil Engineering, Cal Poly San Luis Obispo, 1999

### Areas of Expertise:

#### Preconstruction Services:

- Project Design
- Value Analysis
- Schedule Management
- Preconstruction Services
- Cost Estimating
- Joint Project Agreements
- Encroachment Permits

#### Construction Services:

- Construction Management
- Local Agency Coordination
- Utility Coordination
- Railroad Coordination
- Stakeholder Coordination
- Maintenance of Traffic

#### Post Construction Services:

- Highway Maintenance
- Highway Operations

**Position Description/Responsibilities:** During preconstruction, Miki will handle all contractor third-party outreach including utilities, agency and private land owners. Miki will be responsible to secure all required staging areas and any necessary contractor permit requirements. He will create and manage the project schedule from preconstruction through construction close-out.

During the construction phase, in addition to the on-going schedule efforts, Miki will supervise the other Project Engineer staff necessary to effectively execute the work.

**Authority:** Miki has the authority to interact with subcontractors and suppliers and discuss schedule, submittals and crew needs. Miki has authority to "Stop Work" in the event of unsafe conditions.

**Reporting Structure:** Miki reports to the Construction Manager, Russ Jensen.

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Miki is a well-rounded civil engineer with extensive management experience in highway design, construction and operations in the public and private sector.

With experience acting as an Owner's Representative, Miki has gained valuable knowledge in understanding the DOT's needs. This unique perspective has given Miki a greater consideration for the common hurdles faced by owner's, including: scoping; design; construction and maintenance. He understands the importance of completing a high-quality finished project in order to seamlessly turn it over to maintenance.

Miki gets results by developing strong relationships. He keeps team members engaged and holds them accountable for following through with their responsibilities. Miki has already developed relationships with local agencies within the Cosumnes Bridge Replacement project limits.

Miki was recently recognized by Caltrans leadership on the Hwy 99 High Speed Rail CM/GC project team for *Outstanding Contribution to the Project's Success*. He has also served on several selection panels for design-build/CMAR project procurement.



**\$155M SR 99 High Speed Rail CM/GC, Fresno, CA****Project Role:** Construction Manager, Clinton Avenue Traffic Interchange**Contact:** Michael Weber, Construction Office Chief**Phone:** (559) 246-9422**Email:** michael.weber@dot.ca.gov**Dates:** 01/17 – 11/17**Time On Project:** 100%**Project #:** 06-2HT114

An important component of this CM/GC project was the removal and reconstruction of the Clinton Avenue interchange which consisted of bridges over SR 99 and bridges over multiple railroad tracks adjacent to an UPRR switchyard. The aforementioned work had to be completed within six months. Miki successfully orchestrated all of the property owners, utility companies, subcontractors, and other stakeholders to get this major milestone completed safely, on schedule, and on budget.

**Responsibilities include:** Miki was responsible for construction management, contract compliance, scheduling, procurement, and safety. Miki was instrumental in utility coordination (identifying conflicts/relocation), coordination with adjacent property owners to develop construction access areas, and subcontractor management (structures, signals/lighting, underground, white paving). Miki was responsible for a significant milestone completion of the bridge structure (Clinton Interchange) on Highway 99 corridor. He managed highly detailed coordination with UPRR and City of Fresno to remove/replace the Clinton Ave. interchange within a six month work window. All work during this milestone was completed within this aggressive schedule.

Miki worked closely with Caltrans roadway/structures engineers to develop solutions for unforeseen conflicts and third-party delays. Miki successfully orchestrated all of the property owners, utility companies, subcontractors, and other stakeholders to get this major milestone completed safely, on-schedule, and within budget.

**Granite Construction Company, Sacramento, CA****Project Role:** Project Manager/Estimator**Contact:** Colin Crawford, Chief Estimator**Phone:** (916) 855-4466**Email:** Colin.Crawford@gcinc.com**Dates:** 11/17 - Present**Time On Project:** 100%**Project #:** N/A

Miki performs construction estimating for various civil projects in the Sacramento area. Miki was recently the low bidder on a roadway widening project in relative close proximity of the Cosumnes Bridge Replacement Project, and is serving as the Project Manager.

Miki has a good working relationship with the City of Elk Grove, local construction material suppliers, and local developers. Miki has met with local farmers and landowners that are in the zone of influence of the Cosumnes Bridge Replacement project to explore opportunities for construction staging areas, water sources, and borrow sources. These landowners include:

- Martin Feletto (Owner of Felleto Development Company)
- Robert Lent (Chief Executive Officer of Elk Grove Milling Inc.)
- Ken Oneto (farmer along the Cosumnes River)

Miki is well-informed on upcoming private development projects and roadway improvement projects that are in close proximity to the Cosumnes Bridge Replacement project and may require traffic control coordination. These projects include:

- The reconstruction of Kammerer Road from Lent Ranch Parkway to Big Horn Blvd
- Construction of the Wilton Rancheria Elk Grove Resort and Casino just north of the Lent Ranch Parkway and Promenade Parkway intersection



- Construction of 4,000-plus homes north of Kammerer Road from Lent Ranch Parkway to Big Horn Blvd.

Miki is currently managing several concurrent projects that will complete within the next 60 days.

### Arizona Department of Transportation, Tucson, AZ

**Project Role:** Engineering Manager of Construction and Operations  
**Contact:** Brent Cain, P.E. Division Director  
**Phone:** (602) 319-1602  
**Email:** bcain@azdot.gov

**Dates:** 01/11-07/15  
**Time On Project:** 100%  
**Project #:** N/A

Miki was responsible for administering contracts for the state highway improvement projects in southern Arizona with an annual cumulative value of \$100M. Miki provided leadership and direction to direct reports who included Senior Resident Engineers, Land Surveyors and Construction Materials Testing Supervisor.

Miki worked closely with his team, design engineers, and other stakeholders to quickly solve constructability issues, errors, and omissions. Miki was the final step in the issue-escalation process at the District-level, and worked directly with the Deputy State Engineer for Urban Operations to address contractor issues in order to avoid delays and claims.

Miki served as the District representative in risk, value analysis, construction phasing, and traffic management workgroups for interstate improvement projects on I-10 in southern Arizona such as the I-10, Ina Road traffic interchange.

### Arizona Department of Transportation, Kingman, AZ

**Project Role:** District Development Engineer  
**Contact:** Michael Kondelis, P.E., Kingman Division Director  
**Phone:** (928) 279-4739  
**Email:** mkondelis@azdot.gov

**Dates:** 03/07-01/11  
**Time On Project:** 100%  
**Project #:** N/A

Miki served as a project manager for the scoping and design of drainage improvement projects, traffic interchange reconstruction projects and highway intersection improvement projects in northwest Arizona. His responsibilities included the development of plans, specs, quantities, and cost estimates. He was also responsible for obtaining right-of-way, utility and environmental clearance, and drafting joint project agreements for projects that involved AZ Department of Water Resources, Bureau of Land Management, counties, cities, and land developers.

Miki served as the District representative for design reviews, constructability reviews, and value engineering studies for the Arizona approach of the US 93 Hoover Dam bypass, Lake Havasu City bypass, I-40 Kingman Crossing traffic interchange, and I-40 Rattlesnake Wash traffic interchange. Miki was responsible for monitoring the progress and ensuring the advancement of 30-plus District projects that were included in the ADOT Five-Year Transportation Facilities Construction Program.



# COSUMES BRIDGE REPLACEMENT



## APPENDIX B

Legal Documents

APPENDIX B: LEGAL DOCUMENTS

97484

**FILED**  
In the office of the Secretary of State  
of the State of California  
MAY 13 1985  
MURRAY FORD III, Secretary of State  
Deputy

CERTIFICATE OF AMENDMENT AND RESTATEMENT  
OF  
ARTICLES OF INCORPORATION  
OF GRANITE CONSTRUCTION COMPANY

A298408

RICHARD C. SOLARI and FRANK D. MOLLER  
certify that:

1. They are the president and the secretary, respectively of GRANITE CONSTRUCTION COMPANY, a California Corporation.

2. The articles of incorporation of this corporation are amended and restated to read in their entirety as follows:

"I

The name of this corporation is GRANITE CONSTRUCTION COMPANY.

II

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of California other than the banking business, the trust company business or the practice of a profession permitted to be incorporated by the California Corporations Code.

III

- A. The Corporation is authorized to issue two classes of shares to be designated respectively "Preferred" and "Common". The total number of shares which the Corporation is authorized to issue is 30,075,000. The number of Preferred shares which the Corporation is authorized to issue is 75,000, and the par value of each such share is \$100. The number of Common shares which the Corporation is authorized



to issue is 30,000,000 shares, and the par value of each such share is \$.01. Upon the amendment of this article to read as hereinabove set forth, each outstanding Common share of a par value of \$1.00 is converted into or reconstituted as one hundred (100) Common shares of a par value of \$.01 each.

- B. The preferences, privileges and restrictions granted to or imposed on the respective classes of shares or the holders thereof are as follows:

(1) Dividend Rights. The holders of the Preferred shares shall be entitled to receive dividends, out of any funds legally available therefor, at the rate of 5% per annum of the par value thereof, and no more, payable in cash quarterly when declared by the Board of Directors on or about the last day of April, July, October and January, respectively, in each year, with respect to the quarterly period ending on the last day of the preceding month, or at such intervals as the Board of Directors may from time to time determine. Such dividends shall accrue from the date of issuance of the respective Preferred shares, and shall be deemed to accrue from day to day, when earned, whether or not declared; provided, however, that such dividends shall be deemed to be earned only for a fiscal year in which net income after all income taxes exceeds \$800,000, as determined by the Corporation's independent auditors in accordance with recognized and sound accounting practice, and only in that amount by which net income after taxes for that fiscal year exceeds \$800,000. Such dividends shall be payable before any dividends shall be paid, declared or set apart for the Common shares, and shall be cumulative when earned pursuant to the above-mentioned clause, so that if for any dividend period such dividends on the outstanding shares at the rate of 5% per annum of the par

value thereof are deemed to accrue and are not paid or declared and set apart therefor, the deficiency shall be fully paid or declared and set apart for payment, without interest, before any distribution, by dividend or otherwise, shall be paid on, declared or set apart for the Common shares, and before any Common shares are purchased or otherwise acquired for value by the Corporation unless the consent of all holders of Preferred shares is first obtained. Subject to the rights of the Preferred shares, dividends may be paid on the Common shares as and when declared by the Board of Directors out of any funds of the Corporation legally available for the payment of such dividends, but in no case shall a dividend be declared on the Common shares in any fiscal year in which there is insufficient income to pay a full dividend on the Preferred shares to which they would otherwise be entitled.

(2) Liquidation Rights. On any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of the Preferred shares shall receive an amount equal to the par value of such shares, plus all accrued and unpaid dividends, and no more, before any amount shall be paid to the holders of the Common shares. If the assets of the Corporation are insufficient to permit full payment to the Preferred shareholders as herein provided, such assets shall be distributed ratably among the outstanding Preferred shares. Subject to such preferential rights, the holders of the Common shares shall receive, ratably, all remaining assets of the Corporation. A consolidation or merger of the Corporation with or into any other corporation, or a sale of all or substantially all of the assets of the Corporation shall not be deemed a liquidation, dissolution or winding up of the Corporation within the meaning of this paragraph (2).

(3) Redemption Provisions.

(a) The Corporation, at the option of the Board of Directors, may at any time redeem the whole, or from time to time redeem any part, of the Preferred shares outstanding by paying in cash and unsecured subordinated obligations of the Corporation (as described below) therefor, the sum of \$100 per share, plus all dividends accrued, unpaid and accumulated thereon as provided in paragraph (1) of this Article III to and including the date of redemption, hereinafter referred to as the "redemption price"; and by giving to each Preferred shareholder of record at his last known address, as shown on the records of the Corporation, at least 30 days prior notice in writing, by mail, postage prepaid, stating the date and plan of redemption, hereinafter called the "redemption notice." The redemption price shall be payable in cash to the extent of 5% thereof and the balance shall be payable in unsecured subordinated obligations of the Corporation. Should only a part of the outstanding Preferred shares be redeemed, such redemption shall be effected by lot, as prescribed by the Board of Directors, or pro rata; provided, however, that no Preferred shares shall be redeemed unless all accrued dividends on all outstanding Preferred shares shall have been paid for all past dividend periods and full dividends for the current period on all outstanding Preferred shares, except those to be redeemed, shall have been paid or declared and set apart for payment. On or after the date fixed for redemption, each holder of shares called for redemption shall surrender his certificate for such shares to the Corporation at the place designated in the redemption



notice and shall thereupon be entitled to receive payment of the redemption price. Should less than all the shares represented by any surrendered certificate be redeemed, a new certificate for the unredeemed shares shall be issued. If the redemption notice is duly given and if sufficient funds or obligations, or combinations thereof, are available therefor on the date fixed for redemption, then, whether or not the certificates evidencing the shares to be redeemed are surrendered, all rights with respect to such shares shall terminate on the date fixed for redemption, except for the right of the holders to receive the redemption price, without interest, on surrender of their certificates therefor.

(b) If on or prior to any date fixed for redemption of Preferred shares as herein provided, the Corporation deposits with any bank or trust company in California as a trust fund, a sum in cash and obligations sufficient to redeem on the date fixed for redemption thereof, the shares called for redemption, with irrevocable instructions and authority to the bank or trust company to publish the notice of redemption thereof, or to complete such publication if theretofore commenced, and to pay, on and after the date fixed for redemption or prior thereto, the redemption price of the shares to their respective holders on surrender of their share certificates, then from and after the date of the deposit, even though such date may be prior to the date fixed for redemption, the shares so called shall be deemed to be redeemed and dividends on those shares shall cease to accrue after the date fixed for redemption. The deposit shall be deemed to

constitute full payment for the shares to their holders and from and after the date of the deposit the shares shall be deemed to be no longer outstanding, and the holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto, except the right to receive from the bank or trust company payment of the redemption price of the shares, without interest, on surrender of their certificates therefor. Money and obligations so deposited and unclaimed at the end of two years shall be repaid to the Corporation and thereafter the holders of such Preferred shares called for redemption shall look only to the Corporation for payment.

(c) The obligations issued by the Corporation in payment of part of the redemption price shall contain such terms and provisions as the Board of Directors shall determine; provided, however, that to the extent permitted by the law, the following standards shall be met:

(i) The maturity date shall not exceed 20 years from the date of issue.

(ii) The interest rate shall be 7% per annum.

(iii) The interest shall be payable no less frequently than quarterly.

(iv) The obligations shall be freely transferable, subject to compliance with applicable securities law.

(v) The obligations issued pursuant to a common redemption

notice shall be identical, except as to the principal amounts thereof, and shall be issued pro rata to the holders of shares called for redemption in proportion to the redemption prices thereof.

(vi) The obligations shall be unsecured.

(vii) The rights of the holders of the obligations to receive payment of principal and interest shall be subordinate to claims of all other creditors of the Corporation arising prior to maturity of the obligation unless such other claims have been similarly subordinated, in which event the rights of the holders shall rank equally with such claim.

(viii) The due dates of the obligations may be accelerated by the holders in the event the Corporation fails to pay interest thereon for any consecutive twelve month period, but the obligations shall remain subordinated.

(ix) The Corporation may repay all or any part of the principal amount of the outstanding obligations pro rata at any time, without premium or penalty.

(4) Voting Rights. Except as otherwise provided in these articles or by law, holders of the Common shares shall have exclusive voting rights and powers, including the exclusive right to notice of shareholders' meetings. If, however, at any time eight or more quarterly earned dividends, whether or not consecutive, on the Preferred shares shall be in default,



in all or in part, the holders of the Preferred shares as a class shall be entitled to elect the smallest number of directors which will constitute a majority of the Board of Directors, and the holders of the Common shares as a class shall be entitled to elect the remaining director(s). Such voting rights shall continue until all dividends accrued on the Preferred shares shall have been paid or set apart for payment, at which time the entire voting power shall revert to the holders of the Common shares and continue in them until a like default in payment recurs. On election by Preferred shareholders of the number of directors which they are entitled to elect, the terms of office of all directors serving at the time of the meeting shall terminate. Should the holders of the Common shares fail at such meeting to elect the number of directors which they are entitled to elect, the vacancies created thereby shall be filled by election of the directors elected by the Preferred shareholders. When the Preferred shares are divested of their voting rights, the terms of office of all directors shall terminate on election of their successors by the holders of the Common shares.

#### IV

- A. The affirmative vote of the holders of not less than 66-2/3% of the outstanding shares of Common Stock of the Corporation shall be required for the approval or authorization of any "Business Combination" or "Liquidation." For purposes of this Article, the term "Business Combination" means (i) any merger, reorganization or consolidation of or share exchange made by the Corporation or any of its subsidiaries into or with any other person, in each case irrespective of whether the Corporation or its subsidiary is the surviving entity; (ii) except in the ordinary

course of business, any sale, lease, exchange, mortgage, pledge, transfer or other disposition to or with any other person (in a single transaction or a series of related transactions) of all or a Substantial Part (as hereinafter defined) of the assets of the Corporation (including without limitation any securities of a subsidiary); (iii) except in the ordinary course of business, any sale, lease, exchange, mortgage, pledge, transfer or other disposition to or with the Corporation or to or with any of its subsidiaries (in a single transaction or series of related transactions) of the assets or securities of any other person if the fair market value of such assets or securities would constitute a Substantial Part of the assets of the Corporation; (iv) the issuance or transfer of any securities (including any option to purchase any such securities) of the Corporation or any of its subsidiaries, or any adoption of an employee stock purchase plan, by the Corporation or any of its subsidiaries to any person except the Granite Construction Company Employee Stock Ownership Trust (other than an issuance or transfer of securities which is effected on a pro rata basis to all stockholders of the Corporation); and (v) any agreement, contract or other arrangement providing for any of the transactions described in this definition of Business Combination. Anything in the foregoing to the contrary notwithstanding, the term "Business Combination" shall not be deemed to include any of the transactions contemplated by that certain Credit Agreement or that certain Business Loan Agreement, both dated as of February 27, 1985, between the Corporation and Bank of America National Trust and Savings Association, or any renewals, extensions or refundings thereof.

The term "Liquidation" shall mean any distribution of the assets of the Corporation upon any dissolution, winding-up,

liquidation or reorganization of the Corporation but shall not include any election voluntarily to wind up and dissolve the Corporation pursuant to Section 1900(a) of the California Corporations Code.

The term "Substantial Part" shall mean more than 20% of the fair market value of the total consolidated assets of the Corporation and its subsidiaries taken as a whole, as determined by two-thirds of the members of the Board of Directors of such person in good faith, as of the end of its most recent fiscal year ending prior to the time the determination is being made.

- B. Any amendment, change or repeal of these Articles of Incorporation, shall require the favorable vote at a meeting of shareholders of the Corporation or the written consent of the shareholders of the Corporation without a meeting of the holders of at least 66-2/3% of the then outstanding shares of Common Stock of the Corporation."

3. The foregoing amendment and restatement of articles of incorporation has been duly approved by the board of directors.


4. The foregoing amendment and restatement of articles of incorporation has been duly approved by the required vote of shareholders in accordance with Section 902 of the Corporations Code. The total number of outstanding shares of the corporation is 100,000. The number of shares voting



in favor of the amendment equaled or exceeded the vote required. The percentage vote required was more than 50%.

We further declare under penalty of perjury under the laws of the State of California that the matters set forth in this certificate are true and correct of our own knowledge.

Date: March 4, 1985

  
\_\_\_\_\_  
RICHARD C. SOLARI, President

  
\_\_\_\_\_  
FRANK D. MOLLER, Secretary

97484

CERTIFICATE OF AMENDMENT  
OF  
ARTICLES OF INCORPORATION  
OF  
GRANITE CONSTRUCTION COMPANY

A348002

FILED

In the office of the Secretary of State  
of the State of California

MAR 10 1988

*March Fong Eu*  
MARCH FONG EU, Secretary of State

David H. Watts and Frank D. Moller certify that:

1. They are the President and the Secretary of Granite Construction Company, a California Corporation.

2. Article V is added to the Articles of Incorporation of this Corporation to read as follows:

"V

A. The liability of the directors of the Corporation for monetary damages shall be eliminated to the fullest extent permissible under California Law.

B. The Corporation is authorized to provide indemnification of agents (as defined in Section 317 of the Corporations Code) for breach of duty to the corporation and its stockholders through bylaw provisions or through agreements with the agents, or both, in excess of the indemnification otherwise permitted by Section 317 of the Corporations Code, subject to the limits on such excess indemnification set forth in Section 204 of the Corporations Code."

3. The foregoing amendment of Articles of Incorporation has been duly approved by the Board of Directors.

4. The foregoing amendment of Articles of Incorporation has been duly approved by the required vote of shareholders in accordance with Section 902 of the California Corporations Code. The total number of outstanding shares of the Corporation is 10,000,000. The number of shares voting in favor of the amendment equaled or exceeded the vote required. The percentage vote required was more than 50%.

We further declare under penalty of perjury under the laws of the State of California that the matters set forth in this Certificate are true and correct of our own knowledge.

Dated: Mar 3, 1988

*David H. Watts*  
David H. Watts, President

*Frank D. Moller*  
Frank D. Moller, Secretary



**BYLAWS FOR THE REGULATION  
OF  
GRANITE CONSTRUCTION COMPANY  
(a California company)**

**as amended January 31, 2003**





**BYLAWS FOR THE REGULATION  
OF  
GRANITE CONSTRUCTION COMPANY**

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BYLAWS FOR THE REGULATION  
OF  
GRANITE CONSTRUCTION COMPANY  
a California corporation

as Amended January 31, 2003

ARTICLE I

OFFICES

Section 1. Principal Executive Office.

The principal executive office of the corporation designated in these bylaws is located at:

585 West Beach Street  
Watsonville, CA 95076

If no principal executive office is specified above, the Board of Directors shall fix the location of the principal executive office of the corporation at any place within or without the State of California. If the principal executive office is located outside this state and the corporation has one or more business offices in this state, the Board of Directors shall fix and designate a principal business office in the State of California.

The Board of Directors is hereby granted full power and authority to fix or change the location of the principal executive and business offices without amendment to these bylaws.

Section 2. Other Offices.

Branch or subordinate offices may at any time be established by the Board of Directors at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF SHAREHOLDERS

Section 1. Place of Meetings.

All annual and other meetings of shareholders shall be held either at the principal executive office of the corporation or at any other place within or without the State of California which may be designated either by the Board of Directors pursuant to authority hereinafter granted to the Board, or by the written consent of all shareholders entitled to vote thereat, given either before or after the meeting and filed with the secretary of the corporation.

Section 2. Annual Meetings.

The annual meetings of shareholders shall be held on such date as the Board of Directors shall designate. The date so designated shall be within five (5) months after the end of the fiscal year of the corporation, and within fifteen (15) months after the last annual meeting. At the annual meeting, directors shall be elected, reports of the affairs of the corporation shall be considered, and any other business may be transacted which is within the power of the shareholders. Notice of annual meetings shall be given in accordance with the provisions of Sections 4 and 5 of this Article II.

**Section 3. Special Meetings.**

Special meetings of the shareholders, for any purpose or purposes whatsoever, may be called at any time by the president or by the Board of Directors, or by one or more shareholders holding not less than one-tenth of the voting power of the corporation.

If a special meeting of shareholders is called by any person or persons other than the Board of Directors, the request shall be in writing and given to the chairman of the Board, the president, any vice president, or the secretary of the corporation. The officer receiving the request shall cause notice to be promptly given to shareholders entitled to vote, that a meeting will be held at the time requested by the person or persons calling the meeting, not less than thirty-five (35) nor more than sixty (60) days after the receipt of the request. If the notice is not given within twenty (20) days after receipt of the request, the person or persons requesting the meeting may give the notice. Nothing contained in this paragraph of this Section 3 shall be construed as limiting, fixing or affecting the time when a meeting of shareholders called by action of the Board of Directors may be held.

Notices of or requests for special meetings shall be given in accordance with the provisions of Sections 4 and 5 of this Article II.

**Section 4. Notice of Shareholders' Meetings.**

All notices of meetings of shareholders shall be sent or otherwise given in accordance with Section 5 of this Article II not less than ten (10) nor more than sixty (60) days before the date of the meeting. The notice shall specify the place, date and hour of the meeting and (i) in the case of a special meeting, the general nature of the business to be transacted; or (ii) in the case of the annual meeting, those matters which the Board of Directors, at the time of giving the notice, intends to present for action by the shareholders. The notice of any meeting at which directors are to be elected shall include the name of any nominee or nominees who, at the time of the notice, management intends to present for election.

If action is proposed to be taken at any meeting for approval of (i) a contract or transaction in which a director has a direct or indirect financial interest, pursuant to Section 310 of the Corporations Code of California; (ii) an amendment of the articles of incorporation, pursuant to Section 902 of that Code; (iii) a reorganization of the corporation, pursuant to Section 1201 of that Code; (iv) a voluntary dissolution of the corporation, pursuant to Section 1900 of that Code; or (v) a distribution in dissolution other than in accordance with the rights of out-standing preferred shares, pursuant to Section 2007 of that Code, the notice shall also state the general nature of that proposal.

**Section 5. Manner of Giving Notice; Affidavit of Notice.**

Except in special cases where other express provision is made by statute, notice or request of any meeting of shareholders shall be given either personally or by first-class mail or telegraphic or other written communication, charges prepaid. Notice to a shareholder shall be addressed to the shareholder at the address of that shareholder appearing on the books of the corporation or given by the shareholder to the corporation for the purpose of notice. If no such address appears on the corporation's books or is given, notice shall be deemed to have been given if sent to that shareholder by first-class mail or telegraphic or other written communication to the corporation's principal executive office, or if published at least once in a newspaper of general circulation in the county where that office is located. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by telegram or other means of written communication.

If any notice addressed to a shareholder at the address of that shareholder appearing on the books of the corporation is returned to the corporation by the United States Postal Service marked to indicate that the United States Postal Service is unable to deliver the notice to the shareholder at that address, all future notices or reports shall be deemed to have been duly given without further mailing if these shall be available to the shareholder on written demand of the shareholder at the principal executive office of the corporation for a period of one year from the date of

the giving of the notice.

An affidavit of the mailing or other means of giving any notice of any shareholders' meeting may be executed by the secretary, assistant secretary, or any transfer agent of the corporation giving the notice, and shall be filed and maintained in the minute book of the corporation.

**Section 6. Adjourned Meetings and Notice Thereof.**

Any shareholders' meeting, annual or special, whether or not a quorum is present, may be adjourned from time to time by the vote of a majority of the shares represented at the meeting, either present in person or by proxy. In the absence of a quorum no other business may be transacted at such meeting, except as stated in Section 8 of this Article II.

When any meeting of shareholders, either annual or special, is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place are announced at a meeting at which the adjournment is taken, unless a new record date for the adjourned meeting is fixed, or unless the adjournment is for more than forty-five (45) days from the date set for the original meeting, in which case the Board of Directors shall set a new record date. Notice of any such adjourned meeting shall be given to each shareholder of record entitled to vote at the adjourned meeting in accordance with the provisions of Sections 4 and 5 of this Article II. At any adjourned meeting the corporation may transact any business which might have been transacted at the original meeting.

**Section 7. Voting.**

The shareholders entitled to notice of any meeting or to vote at any such meeting shall be only persons in whose name shares stand on the stock records of the corporation on the record date determined in accordance with Section 11 of this Article II.

Voting shall in all cases be subject to the provisions of Chapter 7 of the California General Corporation Law and to the following provisions:

(a) Subject to clause (g), shares held by an administrator, executor, guardian, conservator or custodian may be voted by such holder either in person or by proxy, without a transfer of such shares into the holder's name; and the shares held by a trustee may only be voted by the trustee, either in person or by proxy, if the shares are standing in the name of the trustee.

(b) Shares standing in the name of a receiver may be voted by such receiver; and shares held by or under the control of a receiver may be voted by such receiver without the transfer thereof into the receiver's name if authority to do so is contained in the order of the court by which such receiver was appointed.

(c) Subject to the provisions of Section 705 of the Corporations Code of California, and except where otherwise agreed in writing between the parties, a shareholder whose shares are pledged shall be entitled to vote such shares until the shares have been transferred into the name of the pledgee, and thereafter the pledgee shall be entitled to vote the shares so transferred.

(d) Shares standing in the name of a minor may be voted and the corporation may treat all rights incident thereto as exercisable by the minor, in person or by proxy, whether or not the corporation has notice, actual or constructive, of the nonage, unless a guardian of the minor's property has been appointed and written notice of such appointment given to the corporation.

(e) Shares standing in the name of another corporation, domestic or foreign, may be voted by an officer, agent or proxy holder as the bylaws of the other corporation may prescribe or, in the absence of that provision, as the Board of Directors of the other corporation may determine or, in the absence of that determination, by the chairman of the Board, president or any vice president of the other corporation, or by any other person authorized to do so by the chairman of the Board, president or any vice president of the other corporation. Shares which are purported to be voted or any proxy purported to be executed in the name of a corporation (whether or not any title of the person signing is indicated) shall be presumed to be voted or the proxy executed in accordance with the provisions of this subdivision, unless the contrary is shown.

(f) Shares of the corporation owned by its subsidiary shall not be entitled to vote on any matter.

(g) Shares held by the corporation in a fiduciary capacity, and shares of the corporation held in a fiduciary capacity by any subsidiary, shall not be entitled to vote on any matter, except as follows:

(i) To the extent that the settlor or beneficial owner possesses and exercises a right to vote or to give the corporation binding instructions as to how to vote the shares;

(ii) In the case where there are one or more cotrustees who are not affected by the prohibition of the introductory clause to this paragraph (g), the shares may be voted by the cotrustees as if it or they are the sole trustee.

(h) If shares stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, husband and wife as community property, tenants by the entirety, voting trustees, persons entitled to vote under a shareholder voting agreement or otherwise, or if two or more persons (including proxy holders) have the same fiduciary relationship respecting the same shares, unless the secretary of the corporation is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect:

(i) If only one votes, such act binds all;

(ii) If more than one vote, the act of the majority so voting binds all;

(iii) If more than one vote, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionately.

If the instrument so filed or the registration of the shares shows that any such tenancy is held in unequal interests, a majority or even split for the purpose of this section shall be a majority or even split in interest.

The shareholders' vote may be by voice vote or by ballot; provided, however, that any election for directors must be by ballot if demanded by any shareholder before the voting has begun. On any matter other than elections of directors, any shareholder may vote part of the shares in favor of the proposal and refrain from voting the remaining shares or vote them against the proposal, but, if the shareholder fails to specify the number of shares which the shareholder is voting affirmatively, it will be conclusively presumed that the shareholder's approving vote is with respect to all shares that the shareholder is entitled to vote. If a quorum is present, the affirmative vote of the majority of the shares represented at the meeting and entitled to vote on any matter (other than the election of directors) shall be the act of the shareholders, unless the vote of a greater number or voting by classes is required by California General Corporation Law or by the articles of incorporation.

At a shareholders' meeting at which directors are to be elected, no shareholder shall be entitled to cumulate votes (i.e., cast for any one or more candidates a number of votes greater than the number of the shareholder's shares) unless the candidates' names have been placed in nomination prior to commencement of the voting and a shareholder has given notice prior to commencement of the voting of the shareholder's intention to cumulate votes. If any shareholder has given such a notice, then



every shareholder entitled to vote may cumulate votes for candidates in nomination and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which that shareholder's shares are entitled, or distribute the shareholder's votes on the same principle among any or all of the candidates, as the shareholder thinks fit. The candidates receiving the highest number of votes, up to the number of directors to be elected, shall be elected.

**Section 8. Quorum.**

The presence in person or by proxy of persons entitled to vote a majority of the voting shares at any meeting shall constitute a quorum for the transaction of business. The shareholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough shareholders to leave less than a quorum, if any action taken (other than adjournment) is approved by at least a majority of the shares required to constitute a quorum.

**Section 9. Waiver of Notice; Consent of Absentees.**

The transaction of any meeting of shareholders, either annual or special, however called and noticed, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present either in person or by proxy, and if, either before or after the meeting, each of the shareholders entitled to vote, not present in person or by proxy, signs a written waiver of notice, or a consent to the holding of such meeting, or an approval of the minutes thereof. All such waivers, consents or approvals shall be filed with the corporate records or made a part of the minutes of the meeting. Neither the business to be transacted at nor the purpose of any regular or special meeting of shareholders need be specified in any written waiver of notice except that if action is taken or proposed to be taken for approval of any of those matters specified in the second paragraph of Section 4 of this Article II, the waiver of notice or consent shall state the general nature of the proposal.

Attendance by a person at a meeting shall also constitute a waiver of notice of that meeting, except when the person objects, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Attendance at a meeting is not a waiver of any right to object to the consideration of matters required by law to be included in the notice of the meeting but not so included if that objection is expressly made at the meeting.

**Section 10. Shareholder Action by Written Consent without a Meeting.**

Any action which may be taken at any annual or special meeting of shareholders may be taken without a meeting and without prior notice, if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding shares having not less than the minimum number of votes that would be necessary to authorize or take that action at a meeting at which all shares entitled to vote on that action were present and voted. In the case of election of directors, such a consent shall be effective only if signed by the holders of all outstanding shares entitled to vote for the election of directors; provided, however, that a director may be elected at any time to fill a vacancy on the Board of Directors that has not been filled by the directors, by the written consent of the holders of a majority of the outstanding shares entitled to vote for the election of directors. All such consents shall be filed with the secretary of the corporation and shall be maintained in the corporate records. Any shareholder giving a written consent, or the shareholder's proxy holders, or a transferee of the shares or a personal representative of the shareholder or their respective proxy holders, may revoke the *consent* by a writing received by the secretary of the corporation before written *consents* of the number of shares required to authorize the proposed action have been filed with the secretary.

If the consents of all shareholders entitled to vote have not been solicited in writing, and if the unanimous written consent of all such shareholders shall not have been received, the secretary of the corporation shall give prompt notice of the corporate action approved by the shareholders without a meeting. This notice shall be given in the manner specified in Section 5 of this Article II. In the case of approval of a matter listed in the second paragraph of Section 4 of this Article II (except with respect to voluntary dissolution), the notice shall be given at least ten (10) days before the consummation of any action authorized by that approval.

**Section 11. Record Date for Shareholder Notice, Voting and Giving Consents.**

For purposes of determining the shareholders entitled to notice of any meeting or to vote or entitled to give consent to corporate action without a meeting, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) days nor less than ten (10) days before the date of any such meeting nor more than sixty (60) days before any such action without a meeting, and in this event only shareholders of record on the date so fixed are entitled to notice and to vote or to give consents, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date, except as otherwise provided in the California General Corporation Law.

If the Board of Directors does not so fix a record date:

(a) The record date for determining shareholders entitled to notice of or to vote at a meeting of shareholders shall be at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held;

(b) The record date for determining shareholders entitled to give consent to corporate action in writing without a meeting, when no prior action by the Board has been taken, shall be the day on which the first written consent is given; or

(c) When prior action of the Board has been taken, shall be at the close of business on the day on which the Board adopts the resolution relating to that action, or the sixtieth (60th) day before the date of such other action, whichever is later.

A determination of shareholders of record entitled to notice of or to vote at a meeting of shareholders shall apply to any adjournment of the meeting unless the Board of Directors fixes a new record date for the adjourned meeting, but the Board of Directors shall fix a new record date if the meeting is adjourned for more than forty-five (45) days from the date set for the original meeting.

Shareholders on the record date are entitled to notice and to vote or to receive the dividend, distribution or allotment of rights or to exercise the rights, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date, except as otherwise provided in the articles of incorporation or by agreement.

**Section 12. Voting by Proxy.**

Every person entitled to vote for directors or on any other matter shall have the right to do so either in person or by one or more agents authorized by a written proxy signed by the person and filed with the secretary of the corporation. A proxy shall be deemed signed if the shareholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission, or otherwise) by the shareholder or the shareholder's attorney in fact. A validly executed proxy which does not state that it is irrevocable shall continue in full force and effect unless (i) revoked by the person executing it, before the vote pursuant to that proxy, by a writing delivered to the corporation stating that the proxy is revoked, or by a subsequent proxy executed by, or attendance at the meeting and voting in person by, the person executing the proxy; or (ii) written notice of the death or incapacity of the maker of that proxy is received by the corporation before the vote pursuant to that proxy is counted; provided, however, that no proxy shall be valid after the expiration of eleven (11) months from the date of the proxy, unless otherwise provided in the proxy. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provision of Sections 705(e) and 705(f) of the Corporations Code of California.

**Section 13. Form of Proxies or Written Consent for Corporations Having 100 or More Shareholders.**

(a) If the corporation has outstanding shares held of record by one hundred (100) or more persons but is not subject to the reporting requirements of the Securities Exchange Act of 1934, any proxy or form of written consent distributed to ten (10) or more shareholders must afford the person voting an opportunity to specify a choice among approval, disapproval, or abstention as

to each matter or group of related matters, other than elections of directors or officers.

(b) For the purpose of determining whether the corporation has outstanding shares held of record by one hundred (100) or more persons, shares shall be deemed to be "held of record" by each person who is identified as the owner of such shares on the record of shareholders maintained by or on behalf of the corporation, in accordance with Section 605 of the California Corporations Code.

**Section 14. Inspectors of Election.**

Before any meeting of shareholders, the Board of Directors may appoint any persons other than nominees for office to act as inspectors of election at the meeting or its adjournment. If no inspectors of election are so appointed, the chairman of the meeting may, and on the request of any shareholder or a shareholder's proxy shall, appoint inspectors of election at the meeting. The number of inspectors shall be either one (1) or three (3). If inspectors are appointed at a meeting on the request of one or more shareholders or proxies, the holders of a majority of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, the chairman of the meeting may, and upon the request of any shareholder or a shareholder's proxy shall, appoint a person to fill that vacancy.

These inspectors shall:

(a) Determine the number of shares outstanding and the voting power of each, the shares represented at the meeting, the existence of a quorum, and the authenticity, validity and effect of proxies;

(b) Receive votes, ballots or consents;

(c) Hear and determine all challenges and questions in any way arising in connection with the right to vote;

(d) Count and tabulate all votes or consents;

(e) Determine when the polls shall close;

(f) Determine the result; and

(g) Do any other acts that may be proper to conduct the election or vote with fairness to all shareholders.

ARTICLE IIIDIRECTORSSection 1. Powers.

Subject to limitations of the articles of incorporation, the bylaws, and the General Corporation Law of California as to action which shall be authorized or approved by the shareholders, and subject to the duties of directors as prescribed by the bylaws, all corporate powers shall be exercised by or under the authority of, and the business and affairs of the corporation shall be controlled by, the Board of Directors. Without prejudice to such general powers, but subject to the same limitations, it is hereby expressly declared that the directors shall have the following powers to:

(a) Select and remove all the other officers, agents and employees of the corporation, prescribe such powers and duties for them as may not be inconsistent with law, articles of incorporation or the bylaws, fix their compensation, and require from them security for faithful service.

(b) Conduct, manage and control the affairs and business of the corporation, and make such rules and regulations therefor not inconsistent with law, or with the articles of incorporation or the bylaws, as they may deem best.

(c) Fix or change the location of the principal executive office, principal business office or other offices of the corporation as provided in Sections 1 and 2 of Article I; designate any place within or without the State of California for the holding of any shareholders' meeting or meetings; adopt, make and use a corporate seal, prescribe the forms of certificates of stock, and alter the form of such seal and such certificates from time to time as in their judgment they may deem best, provided such seal and such certificates shall at all times comply with the provisions of law.

(d) Authorize the issue of shares of stock of the corporation from time to time, upon such terms as may be lawful, in consideration of money paid, labor done or services actually rendered, debts or securities cancelled, or tangible or intangible property actually received, or as a dividend, upon a stock split or reverse stock split, reclassification, conversion, or exchange of outstanding shares into shares of another class or other change affecting outstanding shares.

(e) Borrow money and incur indebtedness for the purposes of the corporation, and cause to be executed and delivered therefore, in the corporate name, promissory notes, bonds, debentures, deeds of trust, mortgages, pledges, hypothecations or other evidences of debt and securities therefore.

(f) Appoint an executive committee and other committees, and delegate to the executive committee any of the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, except the power to declare dividends and to adopt, amend or repeal bylaws. The executive committee shall be composed of two or more directors.

Section 2. Number and Qualification of Directors.

The authorized number of Directors shall be not less than 5 nor more than 11 until changed as hereinafter provided. The exact number of Directors shall be fixed, within the limits specified, by a resolution adopted either by the Board of Directors according to Section 9 or Section 12 of Article III as the case may be, or the shareholders according to Section 8 or Section 9 of Article II as the case may be, stating that the exact number of Directors of the Corporation is fixed at a number, which number is within the range above mentioned in this Section. This Section may be changed by amendment to these Bylaws or to the articles of incorporation; provided, however, that if the number of Directors is set forth in the articles of incorporation, the number may be changed only by an amendment to the articles of incorporation. Prior to the issuance of shares by the Corporation, the amendment may be adopted by the



Board of Directors. After the issuance of shares, the amendment must be approved by the vote or written consent of holders of a majority of the outstanding shares entitled to vote; provided, however, that an amendment reducing the number of Directors to a number less than five (5) cannot be adopted if the votes cast against its adoption at a meeting, or the shares not consenting in the case of action by written consent, are equal to more than 16-2/3% of the outstanding shares entitled to vote.

### **Section 3. Election and Term of Office; Removal of Directors.**

The directors shall be elected at each annual meeting of shareholders, but if any such annual meeting is not held, or the directors are not elected thereat, the directors may be elected at any special meeting of shareholders held for that purpose. Except as provided below in the case of removal of a director, all directors shall hold office until the expiration of the term for which elected and until their respective successors have been elected and qualified.

The holders of a majority of the outstanding shares of stock entitled to vote may, at any time, peremptorily terminate the term of office of all or any of the directors by vote at a meeting called for such purpose or by a written statement filed with the secretary of the corporation or, in his absence, with any other officer. Such removal shall be effective immediately even if successors are not elected simultaneously, and the vacancies on the Board of Directors resulting therefrom shall be filled only the shareholders. No director may be removed (unless the entire Board is removed) when the votes cast against removal, or not consenting in writing to such removal, would be sufficient to elect such director if voted cumulatively at an election at which the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized at the time of the director's most recent election were then being elected. Votes sufficient to elect such director shall occur when the shares that are voted against his removal exceed the quotient arrived at by dividing the total number of outstanding shares entitled to vote by one plus the authorized number of directors.

When by the provisions of the articles of incorporation the holders of the shares of any class or series, voting as a class or series, are entitled to elect one or more directors, any director so elected may be removed only by the applicable vote of the holders of the shares of that class or series.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

A director may be removed from office by the superior court of the proper county at the suit (to which the corporation is made a party) of shareholders holding at least 10 percent of the number of outstanding shares of any class, in case of fraudulent or dishonest acts or gross abuse of authority or discretion with reference to the corporation and may be barred from reelection for a period prescribed by the court.

### **Section 4. Vacancies.**

Vacancies in the Board of Directors may be filled by a majority of the remaining directors, though less than a quorum, or by a sole remaining director, except that a vacancy created by the removal of a director by the vote or written consent of the shareholders or by court order may be filled only by the vote of a majority of the shares entitled to vote represented at a duly held meeting at which a quorum is present, or by the written consent of holders of a majority of the outstanding shares entitled to vote. Each director so elected shall hold office until the next annual meeting of the shareholders and until a successor has been elected and qualified.

A vacancy or vacancies in the Board of Directors shall be deemed to exist in the event of the death, resignation, or removal of any director, or if the Board of Directors by resolution declares vacant the office of a director who has been declared of unsound mind by an order of court or convicted of a felony, or if the authorized number of directors is increased, or if the shareholders fail, at any meeting of share-holders at which any director or directors are elected, to elect the number of directors to be voted for at that meeting.

The shareholders may elect a director or directors at any time to fill any vacancy or vacancies not filled by the directors, but any such election by written consent shall require the consent of a majority of the outstanding shares entitled to vote.

Any director may resign effective on giving written notice to the chairman of the Board, the president, the secretary, or the Board of Directors, unless the notice specifies a later time for that resignation to become effective. If the resignation of a director is effective at a future time, the Board of Directors may elect a successor to take office when the resignation becomes effective.

If, after the filling of any vacancy by the directors, the directors then in office who have been elected by the shareholders shall constitute less than a majority of the directors then in office, any holder or holders of an aggregate of five percent (5%) or more of the total number of shares at the time outstanding having the right to vote for such directors may call a special meeting of shareholders to be held to elect the entire Board of Directors. The term of office of any director shall terminate upon such election of a successor.

#### **Section 5. Place of Meeting.**

Regular meetings of the Board of Directors shall be held at any place within or without the State of California, which has been designated from time to time by resolution of the Board or by written consent of all members of the Board. In the absence of such designation regular meetings shall be held at the principal executive office of the corporation. Special meetings of the Board may be held either at a place within or without the State of California so designated or if not stated in the notice or if there is no notice, at the principal executive office. Any meeting, regular or special, may be held by conference telephone or similar communication equipment, so long as all directors participating in the meeting can hear one another, and all such directors shall be deemed to be present in person at the meeting.

#### **Section 6. Annual Meeting.**

Immediately following each annual meeting of shareholders, the Board of Directors shall hold a regular meeting for the purpose of organization, election of officers, and the transaction of other business. Notice of such meeting is hereby dispensed with.

#### **Section 7. Other Regular Meetings.**

Other regular meetings of the Board of Directors shall be held without notice at such times and places as set forth in these bylaws or shall be fixed by duly adopted resolution of the Board; provided, however, should the day of any such regular meeting fall upon a legal holiday, then said meeting shall be held at the same time on the next day thereafter ensuing which is not a legal holiday. Notice of all such regular meetings of the Board of Directors is hereby dispensed with.

#### **Section 8. Special Meetings.**

Special meetings of the Board of Directors for any purpose or purposes shall be called at any time by the president or, if he is absent or unable or refuses to act, by any vice president or by any two directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director, or sent to each director by first-class mail or by other form of written communication, charges prepaid, addressed to him at his address as it is shown upon the records of the corporation, or if it is not so shown upon the records of the corporation or is not readily ascertainable, at the place in which the meetings of the directors are regularly held. In case such notice is mailed or telegraphed, it shall be deposited in the United States mail or delivered to the telegraph company in the place in which the principal executive office of the corporation is located at least four (4) days prior to the time of the holding of the meeting. In case such notice is delivered personally as above provided, or by telephone or telegram, it shall be so delivered at least forty-eight (48) hours prior to the time of the holding of the meeting. Such mailing, telegraphing or delivery as above provided shall be due, legal and personal notice to such director. Any oral notice given personally or by telephone may be communicated either to the director or to

a person at the office of the director who the person giving notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose of the meeting nor the place if the meeting is to be held at the principal executive office of the corporation.

**Section 9. Action without Meeting.**

Any action required or permitted to be taken by the Board of Directors at a regular or special meeting pursuant to these bylaws or Division 1 of Title 1 of the Corporations Code of California may be taken without a meeting if all members of the Board shall individually or collectively consent in writing to such action. Such written consent or consents shall be filed with the minutes of the proceedings of the Board.

**Section 10. Notice of Adjournment.**

Notice of the time and place of holding an adjourned meeting need not be given, unless the meeting is adjourned for more than twenty-four (24) hours, in which case notice of the time and place shall be given before the time of the adjourned meeting, in the manner specified in Section 8 of this Article III, to the directors who were not present at the time of the adjournment.

**Section 11. Waiver of Notice.**

The transactions of any meeting of the Board of Directors, however called and noticed or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present, and if, either before or after the meeting, each of the directors not present signs a written waiver of notice, or a consent to holding such meeting, or an approval of the minutes thereof. The waiver of notice or consent need not specify the purpose of the meeting. All such waivers, consents, or approvals shall be filed with the corporate records or made a part of the minutes of the meeting. Notice of a meeting shall also be deemed given to any director who attends the meeting without protesting before or at its commencement, the lack of notice to that director.

**Section 12. Quorum.**

A majority of the authorized number of directors shall constitute a quorum for the transaction of business, except to adjourn as provided in Section 13 of this Article III, or except as provided in the articles of incorporation. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors, subject to the provisions of Section 310 of the Corporations Code of California (as to approval of contracts or transactions in which a director has a direct or indirect material financial interest), Section 311 of that Code (as to appointment of committees), and Section 317(e) of that Code (as to indemnification of directors). A meeting at which a quorum is initially present may continue to trans-act business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

**Section 13. Adjournment.**

A quorum of the directors may adjourn any directors' meeting to meet again at a stated day and hour; provided, however, that in the absence of a quorum, a majority of the directors present at any directors' meeting, either regular or special, may adjourn, from time to time until the time fixed for the next regular meeting of the Board.

**Section 14. Fees and Compensation of Directors.**

Directors and members of committees may receive such compensation, if any, for their services, and such reimbursement of expenses, as may be fixed or determined by resolution of the Board of Directors. This Section 14 shall not be construed to preclude any director from serving the corporation in any other capacity as an officer, agent,

employee, or otherwise, and receiving compensation for those services.

**Section 15. Committees of Directors; Procedure.**

The Board of Directors may, by resolution adopted by a majority of the authorized number of directors, designate one or more committees, each consisting of two or more directors, to serve at the pleasure of the Board. The Board may designate one or more directors as alternate members of any committee, who may replace any absent member at any meeting of the committee. Any committee, to the extent provided in the resolution of the Board, shall have all the authority of the Board, except with respect to:

(a) the approval of any action which, under the General Corporation Law of California, also requires shareholders' approval or approval of the outstanding shares;

(b) the filling of vacancies in the Board of Directors or in any committee;

(c) the fixing of compensation of the directors for serving on the Board or on any committee;

(d) the amendment or repeal of bylaws or the adoption of new bylaws;

(e) the amendment or repeal of any resolution of the Board of Directors which by its express terms is not so amendable or repealable;

(f) a distribution to the shareholders of the corporation, except at a rate or in a periodic amount or within a price range determined by the Board of Directors; or

(g) the appointment of any other committees of the Board of Directors or the members of these committees.

Meetings and actions of committees shall be governed by, held and taken in accordance with, the provisions of Article III of these bylaws, Sections 5 (place of meetings), 7 (regular meetings), 8 (special meetings and notice), 9 (action without meeting), 10 (notice of adjournment), 11 (waiver of notice), 12 (quorum), and 13 (adjournment), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board of Directors and its members, except that the time of regular meetings of committees may be determined either by resolution of the Board of Directors or by resolution of the committee; special meetings of committees may also be called by resolution of the Board of Directors; and notice of special meetings of committees shall also be given to, all alternate members, who shall have the right to attend all meetings of the committee. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.



ARTICLE IVOFFICERSSection 1. Officers.

The corporation shall have a chairman of the Board or a president, or may have both, a secretary and a chief financial officer. The corporation may also have, at the discretion of the Board of Directors, one or more vice presidents, one or more assistant secretaries, a treasurer, one or more assistant financial officers or treasurers or both, and such other officers as may be appointed in accordance with the provisions of Section 3 of this Article IV. One person may hold two or more offices.

Section 2. Election.

The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 3 or Section 5 of this article, shall be chosen by the Board of Directors, and each shall serve at the pleasure of the Board, subject to the rights, if any, of an officer under any contract of employment.

Section 3. Subordinate Officers, etc.

The Board of Directors may appoint such other officers as the business of the corporation may require, each of whom shall hold office for such period, have such authority and perform such duties as are provided in the bylaws, or as the Board of Directors may from time to time determine.

Section 4. Removal and Resignation.

Subject to the right, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by the Board of Directors at the time in office, at any regular or special meeting of the Board, or, except in case of an officer chosen by the Board of Directors, by any officer upon whom such power of removal may be conferred by the Board of Directors.

Any officer may resign at any time by giving written notice to the Board of Directors or to the president, or to the secretary of the corporation. Any such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. Any resignation is without prejudice to the right, if any, of the corporation under any contract to which the officer is a party.

Section 5. Vacancies.

A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in the bylaws for regular appointments to such office.

Section 6. Chairman of the Board.

The chairman of the Board, if there shall be such an officer, shall, if present, preside at all meetings of the Board of Directors and exercise and perform such other powers and duties as may be from time to time assigned to him by the Board of Directors or prescribed by the bylaws. If there is no president, the chairman of the Board shall in addition be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 7 of this Article IV.

**Section 7. President.**

Subject to such supervisory powers, if any, as may be given by the Board of Directors to the chairman of the Board, if there be such an officer, the president shall be chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. He shall preside at all meetings of the shareholders and in the absence of the chairman of the Board, or if there be none, at all meetings of the Board of Directors. He shall be ex officio a member of all the standing committees, including the executive committee, if any, and shall have the general powers and duties of management usually vested in the office of president of a corporation, and shall have such other powers and duties as may be prescribed by the Board of Directors or the bylaws.

**Section 8. Vice Presidents.**

In the absence or disability of the president, the vice presidents in order of their rank as fixed by the Board of Directors, or if not ranked, the vice president designated by the Board of Directors, shall perform all the duties of the president, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors or the bylaws, and the president or the chairman of the Board.

**Section 9. Secretary.**

The secretary of the corporation shall keep, or cause to be kept, a book of minutes at the principal office or such other place as the Board of Directors may order, of all meetings of directors and shareholders, with the time and place of holding, whether regular or special, and if special, how authorized, the notice thereof given, the names of those present at directors' meetings, the number of shares present or represented at shareholders' meetings and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal office or at the office of the corporations' transfer agent, a record of shareholders or a duplicate record of shareholders, showing the names of all shareholders and their addresses; the number and classes of shares held by each; the number and date of certificates issued for the same; and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all the meetings of the shareholders and of the Board of Directors required by these bylaws or by law to be given, and he shall keep the seal of the corporation in safe custody, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or these bylaws.

**Section 10. Chief Financial Officer.**

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all moneys and other valuables in the name and to the credit of the corporation with such depositories as may be designated by the Board of Directors. He shall disburse the funds of the corporation as may be ordered by the Board of Directors, shall render to the president and directors, whenever they request it, an account of all of his transactions as chief financial officer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or these bylaws.

ARTICLE VINDEMNIFICATION OF DIRECTORS, OFFICERS,  
EMPLOYEES AND OTHER AGENTSSection 1. Indemnification of Agents Other than Fiduciaries of an Employee Benefit Plan.

The corporation shall, to the maximum extent permitted under California law, indemnify each of its agents against expenses, costs, judgments, fines, settlements and other amounts actually and reasonably incurred in *connection* with any proceeding arising by reason of the fact any such person is or was an agent of the corporation. For purposes of this Section 1 and Section 2 of this Article V, an "agent" of the corporation means any person who is or was a director, officer or employee of the corporation, or other person who is an agent of and designated by the corporation as coming under the provisions of this Section 1 ("indemnified agent") or is or was serving at the request of the corporation as a director, officer, employee or indemnified agent of another foreign or domestic corporation, partnership, joint venture, trust or other enterprise, or was a director, officer, employee or indemnified agent of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation. This Section 1 of this Article V shall not apply to any person acting in a fiduciary capacity with respect to an employee benefit plan.

Section 2. Indemnification of Directors, Officers and Employees who are Fiduciaries of Employee Benefit Plans.

The corporation shall, to the maximum extent permitted by law, indemnify and hold harmless each of its directors, officers and employees who, at the direction or request of the corporation, act in a fiduciary capacity with respect to any of the employee benefit plans covering the corporation's employees which is sponsored by the corporation, by an employer organization, or by an employee organization, from all liability, expenses, costs, judgments, fines, settlements and other amounts actually and reasonably incurred, including in connection with any proceeding, arising by reason of the fact any such person is or was acting in such capacity. The persons enumerated in this Section 2 shall be considered "agents" for purposes of Section 3 of this Article V.

Section 3. Definitions; Advances; Insurance.

For purposes of this Article V, "proceeding" means any threatened, pending or completed action or proceeding, whether civil, criminal, administrative or investigative; and "expenses" and "costs" include, without limitation, attorneys' fees and any other expenses or costs of establishing a right to indemnification under this Article V.

Expenses and costs incurred in defending any such proceeding may be advanced by this corporation before the final disposition of the proceeding on receipt of an undertaking by or on behalf of the agent to repay the amount of the advance unless it shall be determined ultimately that the agent is entitled to be indemnified as authorized in this Article V.

Upon and in the event of a determination by the Board of Directors of this corporation to purchase and maintain insurance on behalf of any such agent, this corporation shall purchase and maintain insurance on behalf of the agent of the corporation against any liability asserted against or incurred by the agent in such capacity or arising out of the agent's status as such, whether or not this corporation would have the power to indemnify the agent against the liability under the provisions of this Article V.

**Section 4. Scope of Indemnification.**

Nothing contained in this Article V shall affect any right to indemnification to which persons or agents (other than officers and directors referred to in Section 1 of Article V) of this corporation or any subsidiary hereof may be entitled by contract or otherwise.

Except as may be required by applicable law, no change made to this Article V shall adversely affect any right to indemnification to which a person who is or was a director, officer, employee or indemnified agent is entitled by contract or otherwise in existence prior to the change, without such person's consent. A change made to this Article V and to the Articles of Incorporation which would broaden the indemnification of such a person shall, to the extent permitted by law, be included in the indemnity to which such person is entitled under the contract or other provision in existence prior to the change, without necessity of further amendment thereto, provided that the indemnity thereunder is stated to be to the maximum extent permitted by the provisions of the California Corporations Code, or applicable law, or other words to the same effect.

Provided that the Articles of Incorporation contain a similar provision, the liability of a director for monetary damages in an action brought by or in the right of the corporation for breach of the director's duties to the corporation and its shareholders, shall be eliminated to the fullest extent permitted under California law subject to the limitations set forth in California Corporations Code Section 204(a)(10). Provided further that if the Articles of Incorporation contain an authorizing provision, the corporation shall indemnify its agents who are required to be indemnified under Section 1, and may indemnify other agents, in excess of that expressly permitted by California Corporations Code Section 317 for breach of duty to the corporation and its shareholders; provided, however, that no agent may be indemnified for any acts or omissions or transactions from which a director may not be relieved of liability or as to circumstances in which indemnity is expressly prohibited by California Corporations Code Section 317.

This Article V does not apply to any proceeding against any trustee, investment manager or other fiduciary of any employee benefit plan in that person's capacity as such, who is not a director, officer or employee of the corporation as defined in this Article V. Nothing contained in this Article V shall limit any right to indemnification to which such a trustee, investment manager or other fiduciary may be entitled by contract or otherwise, which shall be enforceable to the extent permitted by applicable law other than this Article V.



ARTICLE VIRECORDS AND REPORTSSection 1. Maintenance and Inspection of Share Register.

The corporation shall keep at its principal executive office, or at the office of its transfer agent or registrar, if either be appointed and as determined by resolution of the Board of Directors, a record of its shareholders, giving the names and addresses of all shareholders and the number and class of shares held by each shareholder.

A shareholder or shareholders of the corporation holding at least five percent (5%) in the aggregate of the outstanding voting shares of the corporation may (i) inspect and copy the records of shareholders' names and addresses and shareholdings during usual business hours on five (5) days prior written demand on the corporation, and (ii) obtain from the transfer agent of the corporation, on written demand and on the tender of such transfer agent's usual charges for such list, a list of the shareholders' names and addresses, who are entitled to vote for the election of directors, and their shareholdings, as of the most recent record date for which that list has been compiled or as of a date specified by the shareholder after the date of demand. This list shall be made available to any such shareholder by the transfer agent on or before the later of five (5) days after the demand is received or the date specified in the demand as the date as of which the list is to be compiled. The record of shareholders shall also be open to inspection on the written demand of any shareholder or holder of a voting trust certificate, at any time during usual business hours, for a purpose reasonably related to the holder's interests as a shareholder or as the holder of a voting trust certificate. Any inspection and copying under this Section 1 may be made in person or by an agent or attorney of the shareholder or holder of a voting trust certificate making the demand.

Section 2. Maintenance and Inspection of Bylaws.

The corporation shall keep at its principal executive office, or if its principal executive office is not in the State of California, at its principal business office in this state, the original or a copy of the bylaws as amended to date, which shall be open to inspection by the shareholders at all reasonable times during office hours. If the principal executive office of the corporation is outside the State of California and the corporation has no principal business office in this state, the secretary shall, upon the written request of any shareholder, furnish to that shareholder a copy of the bylaws as amended to date.

Section 3. Maintenance and Inspection of Other Corporate Records.

The accounting books and records and minutes of proceedings of the shareholders and the Board of Directors and any committee or committees of the Board of Directors shall be kept at such place or places designated by the Board of Directors, or, in the absence of such designation, at the principal executive office of the corporation. The minutes shall be kept in written form, and the accounting books and records shall be kept either in written form or in any other form capable of being converted into written form. The minutes and accounting books and records shall be open to inspection upon the written demand of any shareholder or holder of a voting trust certificate, at any reasonable time during usual business hours, for a purpose reasonably related to the holder's interests as a shareholder or as the holder of a voting trust certificate. The inspection may be made in person or by an agent or attorney, and shall include the right to copy and make extracts. These rights of inspection shall extend to the records of each subsidiary corporation of the corporation.

Section 4. Inspection by Directors.

Every director shall have the absolute right at any reasonable time to inspect all books, records, and documents of every kind and the physical properties of the corporation and each of its subsidiary corporations. This inspection by a

director may be made in person or by an agent or attorney and the right of inspection includes the right to copy and make extracts of documents.

**Section 5. Annual Report to Shareholders.**

If the corporation has one hundred (100) or more shareholders (determined as provided in paragraph (b) of Section 13 of Article II) the Board of Directors shall cause an annual report to be sent to the shareholders not later than one hundred twenty (120) days after the close of the fiscal year adopted by the corporation. This report shall be sent at least fifteen (15) days before the annual meeting of shareholders to be held during the next fiscal year and in the manner specified in Section 5 of Article II of these bylaws for giving notice to shareholders of the corporation. The annual report shall contain a balance sheet as of the end of the fiscal year and an income statement and statement of changes in financial position for the fiscal year, accompanied by any report of independent accountants or, if there is no such report, the certificate of an authorized officer of the corporation that the statements were prepared without audit from the books and records of the corporation. The annual report is expressly dispensed with where the corporation has less than one hundred (100) shareholders.

**Section 6. Financial Statements.**

If no annual report for the last fiscal year has been sent to shareholders, the corporation shall, upon the written request of any shareholder made more than one hundred twenty (120) days after the close of that fiscal year, deliver or mail to the person making the request within thirty (30) days thereafter the balance sheet, income statement and statement of changes in financial position, accompanied by the report of accountants or certificate of officer, as referred to in Section 5, for that year.

If a shareholder or shareholders holding at least five (5%) percent of the outstanding shares of any class of stock of the corporation makes a written request to the corporation for an income statement of the corporation for the three-month, six-month, or nine-month period of the then current fiscal year ended more than thirty (30) days before the date of the request, and a balance sheet of the corporation as of the end of that period, and if no annual report for the last fiscal year has been sent to shareholders, the statements referred to in the first paragraph of this Section 6. The chief financial officer shall cause those statements to be prepared, if not already prepared, and shall deliver personally or mail them to the person making the request within thirty (30) days after the receipt of the request.

A copy of the statements requested or required to be delivered in accordance with the foregoing paragraphs, shall be kept on file in the principal office of the corporation for twelve (12) months and it shall be exhibited at all reasonable times to any shareholder demanding an examination of the statements or a copy of the statements shall be mailed to the shareholder.

The quarterly income statements and balance sheets referred to in this section shall be accompanied by the report, if any, of any independent accountants engaged by the corporation or the certificate of an authorized officer of the corporation that the financial statements were prepared without audit from the books and records of the corporation.

If the corporation has fewer than 100 holders of record of its shares, the financial statements of the corporation, required to be furnished by Section 5 and this Section 6 are not required to be prepared in conformity with generally accepted accounting principles if they reasonably set forth the assets and liabilities and the income and expense of the corporation and disclose the accounting basis used in their preparation.

**Section 7. Annual Statement of General Information.**

The corporation shall, during the applicable period in each year, file with the Secretary of State of the State of California, on the prescribed form, a statement setting forth the authorized number of directors, the names and complete business or residence addresses of all incumbent directors, the names and complete business or residence addresses of

the chief executive officer, secretary, and chief financial officer, the street address of its principal executive office or principal business office in this state, and the general type of business constituting the principal business activity of the corporation, together with a designation of the agent of the corporation for the purpose of service of process, all in compliance with Section 1502 of the Corporations Code of California.

ARTICLE VIIGENERAL CORPORATE AND MISCELLANEOUS MATTERS**Section 1. Record Date for Purposes Other than Notice and Voting.**

For purposes of determining the shareholders entitled to receive payment of any dividend or other distribution or allotment of any rights or entitled to exercise any rights in respect of any other lawful action (other than action by shareholders by written consent without a meeting), the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) days before any such action, and in that case only shareholders of record on the date so fixed are entitled to receive the dividend, distribution, or allotment of rights or to exercise the rights, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date so fixed, except as otherwise provided in the California General Corporation Law.

If the Board of Directors does not so fix a record date, the record date for determining shareholders for any such purpose shall be at the close of business on the day on which the Board adopts the applicable resolution or the sixtieth (60th) day before the date of that action, whichever is later.

**Section 2. Checks, Drafts, Evidences of Indebtedness.**

All checks, drafts, or other orders for payment of money, notes, or other evidences of indebtedness, issued in the name of or payable to the corporation, shall be signed or endorsed by such person or persons and in such manner as, from time to time, shall be determined by resolution of the Board of Directors.

**Section 3. Corporate Contracts and Instruments; How Executed.**

The Board of Directors, except as otherwise provided in these bylaws, may authorize any officer or officers, agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation, and this authority may be general or confined to specific instances; and, unless so authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent, or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

**Section 4. Certificates for Shares.**

A certificate or certificates for shares of the capital stock of the corporation shall be issued to each shareholder when any of these shares are fully paid, and the Board of Directors may authorize the issuance of certificates for shares as partly paid provided that these certificates shall state the amount of the consideration to be paid for them and the amount paid. All certificates shall be signed in the name of the corporation by the chairman of the Board (or the vice chairman thereof) or the president (or a vice president) and by the chief financial officer or an assistant treasurer or the secretary or any assistant secretary, certifying the number of shares and the class or series of shares owned by the shareholders. Any or all of the signatures on the certificate may be facsimile. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed on a certificate shall have ceased to be that officer, transfer agent, or registrar before that certificate is issued, it may be issued by the corporation with the same effect as if that person were an officer, transfer agent, or registrar at the date of issue.

If the shares of the corporation are classified or if any class of shares has two or more series, there shall appear on the certificate one of the following: (a) a statement of the rights, preferences, privileges and restrictions granted to or imposed upon each class or series of shares authorized to be issued and upon the holders thereof; (b) a summary of such rights, preferences, privileges and restrictions with reference to the provisions of the articles of incorporation and any certificates of determination establishing the same; (c) a statement setting forth the office or



agency of the corporation from which shareholders may obtain, upon request and without charge, a copy of the statement referred to iii (a) above.

There shall also appear on the certificate the statements required by all of the following clauses to the extent applicable: (1) the fact that the shares are subject to restrictions upon transfer; (2) if the shares are assessable or are not fully paid, a statement that they are assessable or, on partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon; (3) the fact that the shares are subject to a close corporation voting agreement or an irrevocable proxy or restrictions upon voting rights contractually imposed by the corporation; (4) the fact that the shares are redeemable; and (5) the fact that the shares are convertible and the period for conversion.

#### **Section 5. Lost Certificates.**

Except as provided in this Section 5, no new certificates for shares shall be issued to replace an old certificate unless the latter is surrendered to the corporation and cancelled at the same time. The Board of Directors may, in case any share certificate or certificate for any other security is lost, stolen, or destroyed, authorize the issuance of a replacement certificate on such terms and conditions as the Board may require, including provision for indemnification of the corporation secured by a bond or other adequate security sufficient to protect the corporation against any claim that may be made against it, including any expense or liability, on account of the alleged loss, theft, or destruction of the certificate or the issuance of the replacement certificate.

#### **Section 6. Representation of Shares of Other Corporations.**

The chairman of the Board, the president, or any vice president, or any other person authorized by resolution of the Board of Directors or by any of the foregoing designated officers, is authorized to vote on behalf of the corporation any and all shares of any other corporation or corporations, foreign or domestic, standing in the name of the corporation. The authority granted to these officers to vote or represent on behalf of the corporation or corporations may be exercised by any of these officers in person or by any person authorized to do so by a proxy duly executed by these officers.

#### **Section 7. Construction and Definitions.**

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the California General Corporation Law shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

#### **Section 8. Corporate Seal.**

If a corporate seal is adopted and unless its form is otherwise determined or changed by the Board of Directors, it shall consist of a circular die bearing the name of the corporation and the state and date of its incorporation. If and when authorized by the Board of Directors, a duplicate of the corporate seal may be kept and used by such officer or person as the Board of Directors may designate. Failure to affix the corporate seal does not affect the validity of any instrument of the corporation.

#### **Section 9. Amendment of Bylaws by Shareholders.**

New bylaws may be adopted or these bylaws may be amended or repealed by the vote or written consent of holders of a majority of the outstanding shares entitled to vote; provided, however, that if the articles of incorporation of the corporation set forth the number of authorized directors of the corporation, the authorized number of directors may be changed only by an amendment of the articles of incorporation.

**Section 10. Amendment of Bylaws by Directors.**

Subject to the rights of the shareholders as provided in Section 9 of this Article VII, bylaws, other than a bylaw or an amendment of a bylaw changing the authorized number of directors, may be adopted, amended, or repealed by the Board of Directors.

# GRANITE CONSTRUCTION COMPANY

## CERTIFICATE OF SECRETARY

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I, Richard A. Watts, Secretary of GRANITE CONSTRUCTION COMPANY, a California corporation (the "Company"), do hereby certify that the following is a true and correct copy of resolutions duly adopted on September 29, 2017 and effective October 16, 2017 by a Unanimous Written Consent of the Board of Directors in accordance with the provisions of Article III, Section 9 of the Bylaws of the Company; that the Directors acting were duly and regularly elected; and that the resolutions adopted have not been repealed and are still in full force and effect:

### AUTHORIZATION TO EXECUTE DOCUMENTS AND AGREEMENTS

**RESOLVED**, that the below listed officers are authorized to execute and deliver on behalf of the Company all documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

James H. Roberts	President & Chief Executive Officer
Laurel J. Krzeminski	Executive Vice President, Chief Financial Officer & Assistant Secretary
Philip M. DeCocco	Senior Vice President of Human Resources & Assistant Secretary
Kyle T. Larkin	Senior Vice President, Group Manager & Assistant Secretary
Richard M. Rantala	Senior Vice President, Business Development & Assistant Secretary
James D. Richards	Senior Vice President, Group Manager & Assistant Secretary
Dale A. Swanberg	Senior Vice President, Group Manager & Assistant Secretary
Mathew C. Tyler	Senior Vice President, Federal Group Operations & Assistant Secretary
Richard A. Watts	Senior Vice President, General Counsel, Corporate Compliance Officer & Secretary
Jigisha Desai	Vice President of Corporate Finance, Treasurer, Assistant Financial Officer & Assistant Secretary
Bradley G. Graham	Vice President, Controller, Assistant Financial Officer & Assistant Secretary
Robert F. McTavish	Vice President, Deputy Group Manager & Assistant Secretary
Nicholas B. Blackburn	Director of Corporate Taxation & Assistant Secretary
Kenneth B. Olson	Assistant Treasurer & Assistant Secretary


**RESOLVED FURTHER**, that the authority provided for herein shall be in accordance with applicable policies, procedures and limits of authority previously approved and the Granite Construction Incorporated Delegation of Authority and Policy then in effect.

**AUTHORIZATION TO ATTEST DOCUMENTS AND AGREEMENTS**

**RESOLVED**, that the below listed officers are authorized to attest documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

James H. Roberts	President & Chief Executive Officer
Laurel J. Krzeminski	Executive Vice President, Chief Financial Officer & Assistant Secretary
Philip M. DeCocco	Senior Vice President of Human Resources & Assistant Secretary
Kyle T. Larkin	Senior Vice President, Group Manager & Assistant Secretary
Richard M. Rantala	Senior Vice President, Business Development & Assistant Secretary
James D. Richards	Senior Vice President, Group Manager & Assistant Secretary
Dale A. Swanberg	Senior Vice President, Group Manager & Assistant Secretary
Mathew C. Tyler	Senior Vice President, Federal Group Operations & Assistant Secretary
Richard A. Watts	Senior Vice President, General Counsel, Corporate Compliance Officer & Secretary
Jigisha Desai	Vice President of Corporate Finance, Treasurer, Assistant Financial Officer & Assistant Secretary
Bradley G. Graham	Vice President, Controller, Assistant Financial Officer & Assistant Secretary
Robert F. McTavish	Vice President, Deputy Group Manager & Assistant Secretary
Nicholas B. Blackburn	Director of Corporate Taxation & Assistant Secretary
Kenneth B. Olson	Assistant Treasurer & Assistant Secretary
Kenneth M. Smith	Group Counsel & Assistant Secretary
Jason M. Jasper	Group Counsel & Assistant Secretary

Dated: January 4, 2018

  
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Richard A. Watts

